

Jim Morrison: Spoil the Rod and Despair

MONDO

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Brian Eno

D'Cückoo

Burroughs &
Leary Together

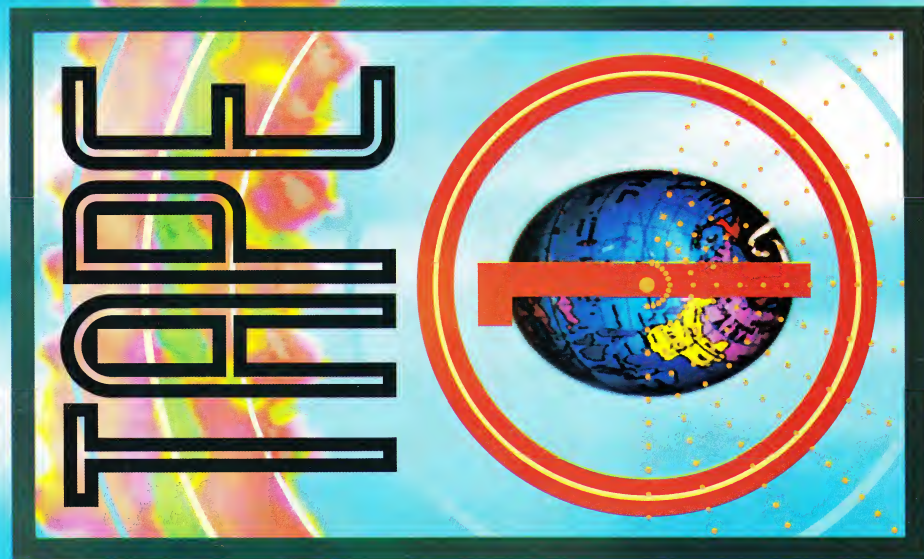


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Stephanie Rausser shot our Cover Model Marcia at Ocean

Beach. The transparency was scanned on the Scitex SmarTwo at Digital Prepress International and was manipulated in Adobe Photoshop on the Macintosh IIfx and separated on the Agfa Proset at Top Copy (thanks to Everyone at Top Copy for making our stay there so enjoyable, all these weeks).

The Magazine's spine is by John Borruso, who also created several other illos sprinkled throughout this issue (John can be seen and heard DJing at the Covered Wagon). The Orpheus in the Maelstrom image on page 128 is assembled from photos by Gloria Stavers (of Jim Morrison) and John R. Foster (the solar Eclipse) and technical specifications blah, blah, blah as above. The "Enolith" image on page 114 was extrapolated by Mondo regular Mark Landman from a photograph by Jay Blakesberg. Jay also shot Mark Dippé and Lisa van Cleef of Industrial Light and Magic on page 146.

Eric White put Andy Warhol's head in the deep freeze on page 56 and captured the important details of Timothy Leary and William Burroughs' conversation on page 84. (why hasn't Rhonda Rubenstein called me for Eric's phone number yet?)

As usual, all our artists did a swell job in this issue of Mondo, and they're to be congratulated—we'll pay them in due course—but wouldn't it be fine if you bought them a drink or a smart drug and an Erté vase the next time you pass them on the street?

—Bart Nagel

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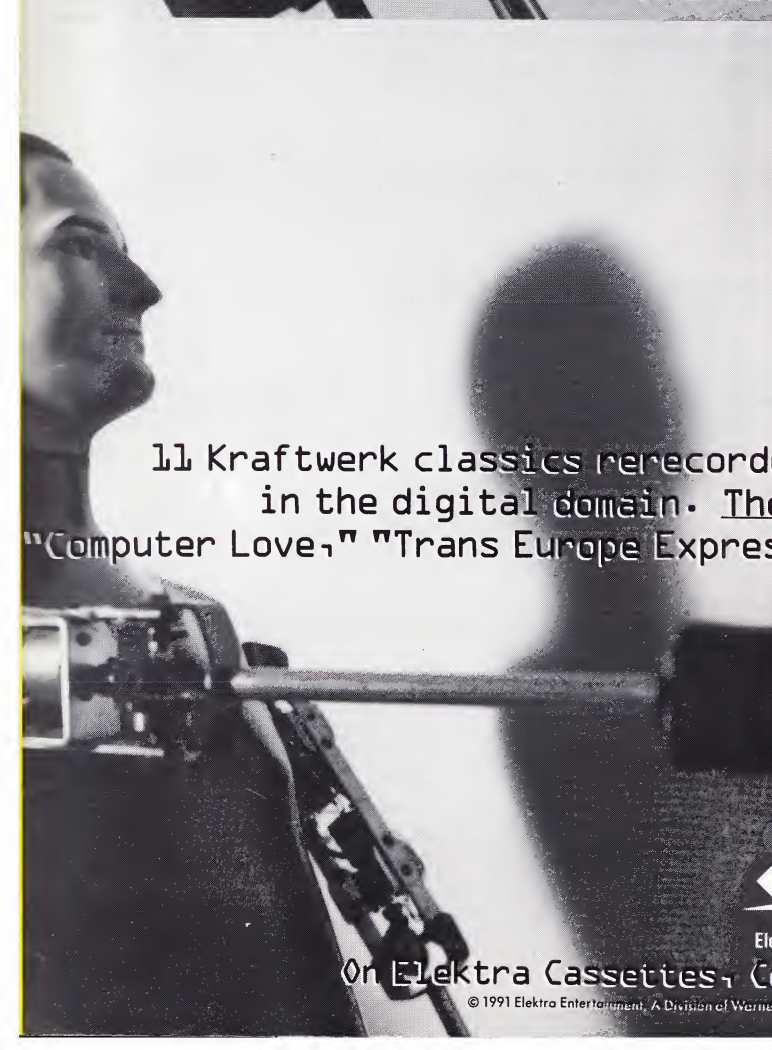
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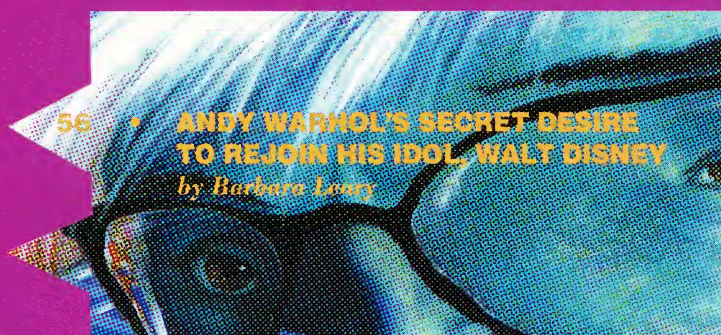
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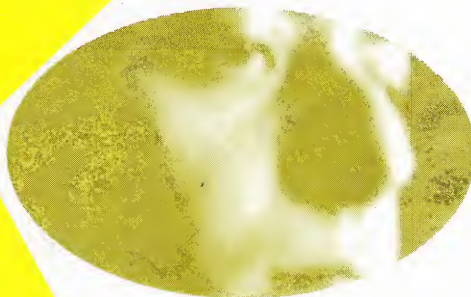
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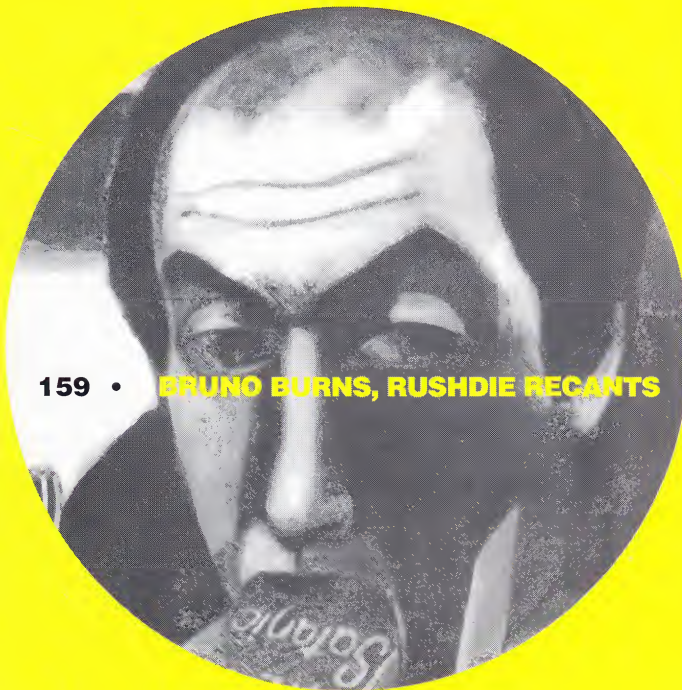
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**CYBERPUNK.
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*One world / one mind / one thought
We do what we're told
—Peter Gabriel*

*He could sell a rat's asshole for a
wedding ring
—American street saying*

*You've gotta look sharp / and you've
gotta have no illusions / just keep going
your way looking over your shoulder
—Joe Jackson*

Back in our second issue, commenting on the end of the cold war, I warned of a "legalistic, megacorporate, one-world, peace on earth." Right. Welcome to the New World Order.

So here we are—decadent soft-core-commercial anarchists operating out of multinational Japan's favorite 2-bit Banana Republic, this mercenary entertainment state with a big Hollywood Rambo ego, all glitter on the edges and *profoundly* stupid in the middle. How can we resist the New World Order, irresistible as it is?

There's always been the idealistic hope, ever since The League of Nations, that in this time of increased interpenetration and communication, nations great and small could come together to blah blah ad nauseum. Forget it! The New World Order is the thousand year Reich of the international well-behaved center, with a small sexually pent-up macho American adolescent core of police protectors and overseas mercenaries.

To resist the New World Order, spread chaos and confusion, first amongst your selves. Don't come together. Come apart. Don't identify with the nation state, the tribe, your race, gender, bulletin board or dance club. That's how you get suckered. Be

mercilessly politically incorrect. Be commercially successful by being pleasingly offensive. Subvert through media, not because you think you can "change the system" but because successfully tickling America's self-loathing funny bone is an amusing form of foreplay. And believe us, everybody's gonna get fucked.

Holocaust German-style, 1940's: piled up dead Jews, gypsies and communists in a concentration camp. Holocaust American-style, 1990's: Consumer goods spill out of the guts of bombed-out cars in a silent traffic jam in the Kuwaiti desert. With dead Iraqis hidden from view inside.

Johnny's come marching home. America is transformed in its pride. The American media completely capitulated to state censorship. *That job is done.*

Have no illusions. Something has changed. You blinked your eyes and there was suddenly a juggernaut. Blink again and it's breaking down your door. Abortion. Drugs. Freedom of speech. You could wake up tomorrow and find out that *if it ain't whitebread, it ain't allowed*. We can now see how fast it can happen.

So the New World DisOrder—which is all you have left—starts within yourself. It starts when somebody says "we should (or shouldn't) fight against Iraq" and you think, "What the fuck do you mean by *we*? I'm not gonna fight, you're not gonna fight, and I'm not a member of any nation state. There *is* no *we*." The New World DisOrder starts when you realize that safe sex is boring sex, cheap thrills are fun *and you're as atavistic as they are*. The New World DisOrder starts when you no longer can listen to debates about whether the nice guys or the mean guys can make the trains run on time. This ain't a reasoned debate. This is Jehovah against Dionysus. Let's drink that tired old self-righteous motherfucker under the table. **Me**

New World Disorder:

All is NOT One

R.U. Sirius



Bart Nagel

mixed with 25% lies, and 25% non-sequiters. Because the secrets are "targeted" to a specific fringe group (UFO-nuts), the general public credibility rating in the material sinks to zero.

What is not believed does not exist. For proof, just look at the Democrats.

Are there really enormous underground bases in the American Southwest? Yes, built not by aliens, but by alienated taxpayer dollars. They are the largest excavated constructions ever made by men, and it's all uninhabited, a modern-day pyramid built by the arrogance of Pharaoh in his quest to survive death.

These underground bases exist, but the Pentagon doesn't want you to know it spent taxpayer's money to ensure military "command, control and communication in a post-nuclear environment," which is to say, our computers will continue to initiate nuclear attacks against "the insidious enemy computers" years after all the taxpayers are dead.

Do "Gray Aliens" abduct people from their rooms at night for a cosmic house party and rectal exam?

This abduction story sounds like a smokescreen for a psy-tech assault our military government is waging against dissident civilians using next-generation consciousness weapons, which can generate and transmit an electronic hallucination directly into your head.

It's the easiest way yet for the state to discredit you.

Colorful, electronic images are injected into your head while you sleep that suggest that aliens want to share their UFO-propulsion secrets with you, because after an exhaustive search of the galaxy, only YOU are morally qualified to deal with them.

If the victim of this mind rape can escape being institutionalized, or losing his friends, it will be a miracle.

And this kind of incident is being reported with increasing frequency, the victims often people who are "politically active."

The issue here is not Do Aliens Exist And Why Are They Invading Earth?

The issue is Who Is Setting The Aliens Up To Be The Patsy?

I contend that our military government, seeking to consolidate their power over our minds, is responsible for everything blamed on the "gray" aliens, from cattle mutilations to the quest for world domination.

Best,
Jeff Mitchell

That Xandor Korzybski sure is wacky. Thank God you came along to straighten this thing out. R.U.

While I found Gracie & Zarkov's article, "The Shadow World of Heavy Metal," clever and provocative, I felt compelled to comment on their observations about the return of the Goddess as evidenced in heavy metal rock videos.

Although the Goddess has made herself manifest in a number of arenas, nowhere else has her image been so brutally contorted as in the heavy metal industry. The Goddess was rediscovered for those who sought a more equitable vision of the Divine. The heavy metal industry was also eager to claim the Goddess—using her mythic appeal to construct for the public an image of women whose feminine talents are used to either adore or abhor the male. "Positive and sympathetic" depictions of strippers, prostitutes, and "feral" women (portrayed as animals that need to be domesticated) are all stereotypes that require the domination of the male to subordinate the female. Ace Frehley's video is one example of this. Naturally his depiction of prostitutes would be positive and sympathetic—their

job is to please men!!!

The article suggests that women can receive some empowerment from these dark aspects of the Goddess, stating that these strong, sexual and powerful images of women "imply the reemergence of the now-degraded archetypes of hierodule and sexual hierophant (priest)." With the help of the feminist movement, the archetype of woman as sexual hierodule (meaning, a slave in the service of the temple) has been deemed an inappropriate model for women today. Women have for too long been regarded as nothing but slaves in the service of the "temple"—whether that temple be the workplace, the church, or men's bodies.

I welcome the return of the Goddess, but she must be represented in her entirety, not by piecemeal selectivity. Obviously, the Goddess is more than one image—she is the composite of many traits and characteristics. While on one hand she is the fierce huntress and warrior, she is also the nurturer, the lover, and the creator. Additionally, I do not believe heavy metal explores difficult sexual themes; rather, its focus is entirely one-sided. If it did examine these themes to any great extent, it would explore issues of male dominance over women in forms of power, rape and oppression. It would explore the damaging effects of a patriarchal culture on men and on our fragile environment. It would seek to explore fuller expressions of both women's and men's humanity. I believe, contrary to Gracie and Zarkov's conclusion, that heavy metal videos are the negative and warped expressions of sexuality.

Heavy metal videos hold a great deal of potential for dispelling stereotypes for both men and women. However, if in these videos the music industry continues to portray women merely as the dark Goddess, we shall see human relationships but through a glass

darkly—trading trash for truth, and lust for liberation.

Kathleen C. Rolenz, Denver

Dear R.U. Sirius? (Must Not Be):

You guys blew it completely. You really had me going after I picked up your rag from my local forward-thinking bookshop. I read with great interest your concerns about Operation Sundevil. And, yes, while some of the activities the hackers/crackers/BBS operators were involved in were on the fringes of legality, I figure that somebody has to push the edge of the envelope.

Where the whole issue came unglued (and where you lost several subscriptions that I was going to recommend to friends) was during Gareth Branwyn's interview with August Bequai. Branwyn's self-righteous "I'm a journalist doing an interview" remark, and the implication that he was objective and just doing his job, is nothing more than virtual reality bullshit. Bequai's comment that he's "not so interested in technophiles who think they have an inherent right to do whatever they feel" kind of sums up my attitude as well.

Your railing and whining sounds like that of frustrated teenagers who are pissed because they can't do whatever they please and stay up all night doing it. Trying to build V.R. is one thing; trying to live there and have everyone else pat you on the back while you sneer and snivel is another.

Good luck, sports. You'll need more than pissing and moaning about having your electronic playground monitored in order to convince a larger audience to pay attention to your efforts at change.

As it is, you've got a slick-looking circle jerk.

Billy Terdman
Kansas City, MO

Thanks! R.U.

press (disinformation) conference—presumably to allow Saddam to live in his under-construction, heavily-fortified secret underground bunker in the Rockies, undoubtedly connected into the alien underground tubes throughout the West.

In case you haven't figured it out, let me spell it out! All this is tightly-scripted, alien-controlled, Hitler-inspired, experimental genocide to test population-control techniques, plus global mind conditioning for the forthcoming enslavement, led by supersadist covert ops assassin George Herr Walker (watch his reptilian mouth—and Cheney's—sadistically twist whenever they lie, reflected in the hypnogenic lizard-mind activation command to "read my lips") with co-conspirator Saddam, who enjoys torturing and murdering kittens and hallucinates himself as the reincarnation of Nebuchadnezzar (who destroyed Jerusalem and deported the Jews to Babylon, now Iraq), plus Superstalinist mind-controller Gorby (the Soviets' secret code name for the Iraqi operation is "Bleed The Dragon," referring to the U.S.)

Skeptical that slimeball Bush would be that cold-blooded? Wake up! Read the book *Terrorists*, revealing nine years of top-level White House backing of Iraqi terrorists. Read the exposé by Iranian ex-president Bani Sadr on Bush's 1980 trip to Paris to keep U.S. MIAs in torture chambers so hired-actor-puppet-president Reagan could win the election. (Did this exposé on May 3 lead to Bush's atrial fibrillation the next day? If so, like Casey, watch for a sudden "brain tumor" or more likely a "stroke" that will take him out before he can be called before Congress.) And take a look at the underground video tape now circulating (and censored by all TV networks) produced in Burma by top Vietnam war hero Colonel Bo Gritz (head, Delta Force and the real-life model for Rambo), who was sent by the White House to bring back the MIAs. He proves conclusively that

Reagan and Bush have been keeping the MIAs in Indochina for fear the MIAs will reveal their massive Trilateral/CIA/KGB/mafia worldwide cocaine/heroin smuggling-racketeer conspiracy, which finances the parallel government and its supersecret illegal intelligence organization headed by Bush (wacker). (Ask 20/20 why they were afraid to show the U.S.-funded highways from the poppy fields in the Burmese jungles in their program about Gritz. Ask any journalist why they haven't written anything about any of this.)

Gritz has now learned about the gray aliens, and recently led an unsuccessful paramilitary raid on one of their secret underground entrances in New Mexico. Just ask any citizen of Dulce, New Mexico, which is close to a major underground alien base connected by underground shuttles to other alien bases throughout the desert, especially to Los Alamos nuke research center and Dreamland, the top-secret government/alien UFO research center north of Las Vegas at Grouse Lake, where the Stealth bombers (the radar-invisible planes that demolished Baghdad) were developed and tested, along with other alien-designed vehicles seen by thousands of locals and covered up by the so-called media (Bush PR machine).

Now consider these facts: in January, an "asteroid" approached the earth within 106,000 miles—the closest an asteroid has ever been seen. What was it? You figure it out. Also in January, meteorologists were shocked to discover "huge [100 kilometer] and mysterious pressure waves... rippling across the midwest," resulting in bizarre weather patterns, according to *The Wall Street Journal*, Jan. 15. These of course are from scalar (Tesla) waves controlled by Soviet mad scientists, who, like U.S. mad scientists, are controlling weather and knocking out crops and inciting riots in cities. This is just one evidence of the invisible massive Third World War (the ongoing elec-

tronic ELF war) between four major countries, using alien-developed technology. Ask book publishers why they are afraid to publish Puharich's tell-all book. I don't blame them. They wouldn't live very long (neither will you, dear monoids, if you keep publishing these letters!). The same war that created 240 mph winds in the Midwest stirred up waves as high as mountains, killing 100,000 in Bangladesh and creating 4 million homeless—the worst wave of global disasters in modern history, according to the U.N.

Meanwhile, says *The New York Times* (April 14), millions are still threatened in the Soviet Union by Gorby's Chernobyl population-control experiment (ten times more fallout than Hiroshima, rivalled only by the 120 million gallons of radioactive waste deliberately dumped into the ground over 20 years at the Hanford reactor in Washington State, according to a federal report released April 12) and in South America by a cholera epidemic threatening millions, according to medical authorities, and already hitting the U.S. (via the programmed-earthquake Costa Rica cholera zone and via travelers), Iraq, and Bangladesh.

Fact: AIDS was created by the CIA at Fort Detrick, Maryland, and unleashed on "unfavorable" elements of society in Africa and the U.S. for population control. Fact: Other genetically-engineered superdiseases are ready, combined with Bush/CIA-engineered drug addiction and savings and loan collapse, to further destabilize the population and create widespread unrest and justify declaration of a "national emergency" and parallel-government (alien-controlled) takeover and internment of perceived troublemakers (*you!*) in the already-waiting Federal Emergency Management Administration concentration camps around the U.S. (FEMA for short).

The clock is now ticking on the Trilateral New World Order (read: loss of all constitutional rights). See

Nixon's White House Executive Order 11490, which allows Federal Emergency Management Administration takeover of all media, energy systems, food, transportation, medical facilities, and housing, along with total mobilization of citizens into work brigades.

Get the media-suppressed facts. Start with Bo Gritz, Box 472, HCR31, Sandy Valley, Nevada 89019 and William Cooper: BBS users, dial 602-567-6725 or write to him at Citizen's Agency For Joint Intelligence, P.O. Box 3299, Camp Verde, AZ 86322 (warning: use a pseudonym and a temporary non-U.S. Post Office mail drop and if you have been contacted by an alien, do NOT tell so-called UFO researchers—the CIA is using many of them to collect names for future internment of implantees).

It's time to act now before the secret government and their alien controllers destroy us all. Demand congressional investigations and the immediate impeachment and public trials for treason of Bush (if he's still alive when you read this), his mindless Howdy Doody puppet-clone Quayle (is this a remote-control android robot, or what?), the entire National Security Council, and all other secret-government traitors. Don't trust bought-out congresspeople—start your own investigations. Demand to see government surveys, satellite photos, the location of Iraq's supercomputer and Bush-suppressed evidence of their nuclear bombs, the full Dr. Strangelove SDI plans crafted by insane German scientists, the facts on the secret ELF war, and the real Majestic 12 (government alien coordinating committee) meeting transcripts (not those in Blum's book from the decoy MJ-12 disinformation group). Force "them" to open up the Nevada and other secret UFO research labs. Back up your files and hide them for the future before the Orwellian New-World-Orderers rewrite what's left of reality.

The time is short. You *know* what to do.

— Xandor Korzybski



UN Treaty

Would Mandate Software Patents

WIPO (World Intellectual Property Organization), a part of the United Nations, is working on a treaty to "harmonize U.S. and European patent law." Proposed articles for the treaty would require the continuation of software patents.

Article 10 (alternative B) of the proposed draft requires patents in all fields of technology. Alternative A for Article 10 would permit each country to specify fields of technology that are excluded from patents. This way, individual countries would retain the option of refusing to issue patents on techniques of programming or features of programs.

One long-standing problem in the software field has been the granting of patents for obvious concepts. Many techno-pundits have suggested setting up a scientific review board to eliminate ridiculous patent claims. Article 18, which prohibits opposition to patents before they're granted, would eliminate that possibility.

Article 22 (alternative B) of the proposal requires that patents

last at least twenty years, much longer than most patents that are granted in the U.S. In an age when the rapid advance of technology makes most technology obsolete within a few years, this would completely halt the free development of software.

Software patents threaten to devastate America's computer industry.

Richard Stallman

Patents granted in the past decade are now being used to attack companies such as the Lotus Development Corporation for selling programs that they have independently developed. Soon most new companies will be barred from the software arena—most major programs will require licenses for dozens of patents, and this will make them infeasible.

To express your views on this treaty to the Administration, write to:

Michael Kirk
Box 4
U.S. Patent and
Trademark Office
Washington, D.C. 20231



REPORT

"We want you to hear, feel, and see what it's like to make love in cyberspace," says filmmaker Gimel Everett. "We're pushing our computer graphic teams to create effects never before seen or heard."

These are the dangerous visions of two Santa Cruz-based filmmakers who are making the first feature film to explore cyberspace. The \$8,000,000 dollar budgeted film is called *Lawnmower Man*, and is loosely based on the Stephen King novel.

In terms of special effects, *The Lawnmower Man* will rely heavily on digitally-created sounds and images. The main character, Jobe, is a semi-retarded man who cuts grass for a living. He becomes a subject in an experimental research program for raising his intelligence via the use of Virtual Reality learning tools supplemented by nootropic cognitive intelligence enhancement drugs, relatively non-toxic substances that "act on the mind."

Things get complicated when Jobe's intelligence is expanded to a superhuman degree and dormant areas of his mind are awakened,

giving him psychic and telekinetic powers. At one point he even experiences cybersex in Virtual Reality.

"We are introducing the whole concept of advanced interactive media to the mass populace," says director Brett Leonard.

"Feature film provides high exposure of new concepts to the mass culture. What's really exciting is that we have had several interactive media companies contact us and want to introduce their products via our film. They see us as a way of getting the word out on their technology. One group wants to spin off an interactive CD-ROM-based graphic novel of the movie, for example."

VR GOES TO WAR!

The U.S. military has played a major role in the evolution of VR technology, including the successful development of SIMNET, a network of 250 tank, helicopter, and plane simulators that allows military personnel to train in a realistic simulated battle environment.

Meanwhile in the business sector, Simulation Devices, Inc. and SimGraphics have publicly announced plans to develop

similar technologies for public entertainment.


The first public VR-based video arcade, "BattleTech," opened in Chicago last autumn. Participants engage each other from within their own battle robot vehicle. All the robots are linked into the same cyberspace. Each player's robot has a customized computer system with an impressive control panel providing real-time sound and viewing of the cyberspace terrain. The player teams up with three others to form a pod of four players in a field of four pods (sixteen players maximum). Team members have voice communication with each other so that they can create group strategies. Some interesting peripherals: you can decipher other pods' voice frequencies, and the network computer regularly changes the weather. General Schwarzkopf never had such fun!

VR AMUSEMENTS IN JAPAN

Sanrio Pureland in Japan is developing a VR amusement park adventure, featuring 3D, super high-resolution visuals (70mm film), motion seats, wind, and smell.

Atari Corporation and Sega are developing vehicle simulation video games that include multiple views, motion, and tactile feedback.

DREAMS

Dream researchers consider cyberspace a training ground for lucid dreaming. Fred Olsen of the San Francisco-based Dream Network says, "People who are good at imagining their own realities have traditionally been the best survivors under traumatic conditions like concentration camps and child abuse. By using powerful interactive sound and imagery to simulate specific states of consciousness, the process of dream re-entry (consciously accessing and creating dreams and memories) can be greatly accelerated." 

PRODUCT

Music Software

The Book of MIDI

Opcode Systems
3641 Haven Drive, Suite A
Menlo Park, CA 94025
Retail Price: \$39.95

The people at Opcode refer to their new Book Of MIDI as edutainment—a way of teaching yourself about MIDI (Musical Instrument Digital Interface) that's both educational and entertaining. It's also a good opportunity to become introduced into the world of interactive multimedia by way of its hypertext format.

Written as a Hypercard stack by Steven Rappaport of The Interactive Music Company in San Francisco, the minimum system configuration necessary to implement this program is a Mac Plus with one megabyte of RAM, a hard drive with two megabytes of free space and Hypercard 1 dot 2. No MIDI hardware is necessary—nor do you need any sound-generating devices.

The Book of MIDI presents a long list of information about this important computer music industry protocol in six comprehensive chapters:

1. What is MIDI?
MIDI and electronic music definitions, with MIDI history.
2. Setting up a Studio
In-depth, step-by-step, from basic to complex.
3. MIDI Hardware

Classic synthesizers, all modern hardware, digitized sounds of synthesizers.

4. MIDI Software
Sequencers, editor/librarians, multimedia and other music related software.
5. The MIDI Specification
This section has been re-written for easier comprehension.
6. The MIDI Game
Challenging interactive game to test one's knowledge of MIDI, computers and music.

Throughout each chapter, keywords are highlighted and cross-indexed for easy reference. Included is a detailed glossary containing hundreds of terms and concepts. This invaluable software package is a great resource for novice or professional, and its easy-to-use format makes it an ideal learning tool. At a price tag of less than \$40, The Book of MIDI represents one of the best bargains around.

MAX

Opcode Systems, Inc.
3641 Haven Drive, Suite A
Menlo Park, CA 94025
Retail Price: \$395

One of the most talked-about products at the winter NAMM show was Opcode Systems' new

realtime graphic programming language, MAX. This program was developed by Miller Puckette at IRCAM, the computer music research center in Paris, France. The user interface was further developed by David Zicarelli for Opcode. The program is now available for general release.

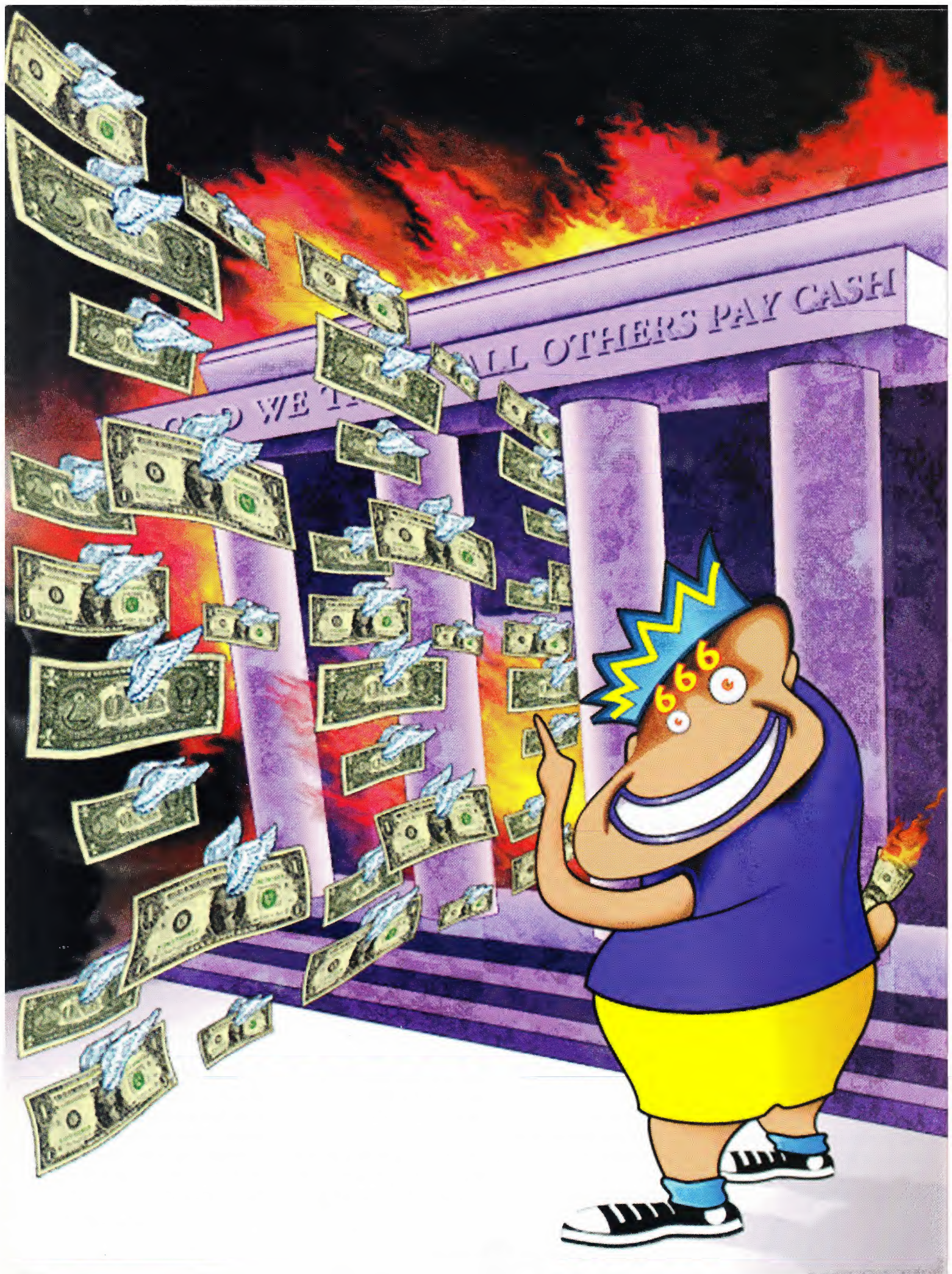
MAX is an ideal environment for custom designing computer applications to be used in the control of hypermedia instrumentation including MIDI devices, video instruments, digital audio sources, animation systems and virtually any device that has some kind of control voltage I/O port. Based on the C programming language, MAX is simple to use yet immensely dense in its capabilities.

The answer to virtually any question that you may have relative to MAX's capabilities is *Yes*. By automatically taking care of low-level programming tasks, MAX allows the artist to produce complex algorithmic constructs quickly, to meet the most demanding of requirements.

Demonstrations have included control of lighting grids, video discs, compact digital audio discs and MIDI computer music systems. If you have reached the theoretical limits of your off-the-shelf software packages and dream of new creative vistas to challenge your artistic instincts, MAX is just the package you've been waiting for.

Ed Tywoniak

continued on page 18





and I beheld another beast coming up out of the earth; and he had two horns like a lamb, and he spake as a dragon."

"And he causeth all, both small and great, rich and poor, free and bond, to receive a mark in their right hand, or in their foreheads;

"And that no man might buy or sell, save he that had the mark, or the name of the beast, or the number of his name.

"Here is wisdom. Let him that hath understanding count the number of the beast, for it is the number of a man; and his number is Six Hundred, Threescore and six."

Revelations 13:11-18

The Holy Bible

King James Translation, 1611

Sound like biblical babble, or a description of the coming all-electronic cashless society?—A society based on smart debit cards, electronic funds transfer, and implanted silicon chips.

by Sir Real

These words of St. John the Apostle, recorded nearly 2000 years ago, vividly prophesy a time when any act of commerce would be controlled by "a beast," when anyone who wanted to buy or sell must have "the mark of the beast" on their hand or forehead in order to conduct business.

These words have provided fodder for generations of biblical exegetes—yet, to my knowledge, no scholar has pointed out the uncanny parallels with present-day electronic funds transfer technology.

Have you looked at your credit cards or bank checks lately? Ever notice the long series of numbers in your account? Each and every individual bank,



savings and loan, or other financial institution has been assigned its own identification number, which usually appears as the first numbers of your account.

For example, a VISA card account number might be: 5277-0618-0356-2601:

The first four digits identify this as a VISA card issued to a certain bank.

The next four digits, 0618, identify the specific bank, which in this case happens to be a California Bank.

The next 8 digits are your personal VISA card account number at this bank.

However, there are still other numbers which do NOT appear on any of your accounts, but which are used by financial institutions to regulate, track, and audit the vast number of EFTs (electronic funds transfers) that occur every minute of every day. Perhaps millions of such transactions occur every minute of every day throughout the world.

At the top of the financial world are the large bank clearing houses which process and route every check, credit card slip, or other paper record of daily transactions. These clearing houses append their own code number in front of any specific bank numbers to provide an audit trail tracking capability.

For example, if the bank clearing house in San Francisco processed a chit for the above credit card, it would append its own 5 digit prefix number to the account transaction, such as 83429. When a charge for the above VISA card passed through this clearing house, the ID number would now become: 83429-5277-0618-0356-2601.

Regulating all these bank clearing houses is an entity that *itself* has a master identification number. The master number appended to the beginning of the series just happens to be 666! Whether this is a sublime cosmic coincidence or somebody's idea of a bad joke or part of a master plan by the Far Right to fulfill Biblical prophecy... the imagination boggles! It's up to you Mondoids to find out! **ME**

OMS (OPEN MIDI SYSTEM)

Opcode Systems
3641 Haven Drive, Suite A
Menlo Park, CA 94025
Available with Galaxy Plus Editors
Also available with Vision and
Studiovision™

OMS is a new MIDI operating system which tackles the sometimes overwhelming task of managing a large array of MIDI-controllable devices. Designed to work on a Macintosh platform, OMS allows the user to quickly and easily set up and store preset information about every aspect of the resident MIDI system. Once a patch is defined, any Opcode software program will recognize controller numbers, instrument names, keyboard ranges, sequencer data, system-exclusive information, in a network transparent fashion, even while porting large amounts of data from one application to another. This may be an idea whose time has come. What remains to be seen is whether the OMS protocol will become an industry accepted standard for the monitor and control of large scale systems.

MiBAC

Distributed by Thinkware
MiBAC Music Software, Inc.
P.O. Box 468
Northfield, MN 55057
Retail Price: Unavailable at this time

MiBAC is a Macintosh based software package targeted for the jazz player who wants to utilize his/her MIDI rig to act as a backing musical ensemble for the creation and study of jazz. You enter the style, form, key and chord progression of the song you want and MiBAC analyzes this information and sends relevant MIDI data to your synthesizer system. Immediate uses for this program are easily evident: play your favorite compositions in alternate keys or different tempos, or study chord substitutions or new voicings. MiBAC even exports files

to notation and sequencer-based software packages. This is an excellent program for anyone interested in the study and performance of jazz music.

SYBIL

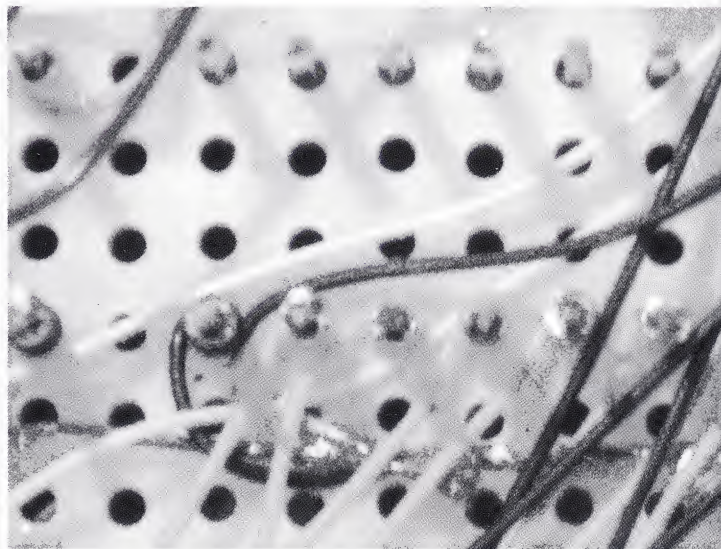
Scorpion Systems Group
18899 West Twelve Mile Road
Lathrup Village, MI 48076
Retail Price: \$299

SYBIL is a powerful realtime performance package that can be used on the Macintosh, IBM or Atari platforms. SYBIL is more than a sequencer or an algorithmic composition program. It presents a means for setting up complex parameter changes affecting any aspect of your music-making system. Patch changes, chordal clustering, pitch extrapolation, polyrhythmic counterpoint and many other factors can be tailored to fit your needs. SYBIL was recently nominated for Best Software Innovation of 1990 by Keyboard Magazine, and it has been getting rave reviews from music industry trade journals and end users alike. I must admit that hearing and seeing this program in action in the hands of a master is really quite astonishing.

The system works on two levels. Level 1 allows you to assign a multi-timbral chord to every key, pad or fret in a region of your controller. Each note of each chord can then be assigned to a separate MIDI channel with its own volume and duration. The result is called an *identity map*.

Level 2 allows you to make realtime changes or adjustments in your system identity map so that your instrument can perform both mapping and dynamic control functions simultaneously. SYBIL is a good example of the new breed of performance-oriented software languages that can bring a human element back into what otherwise can be a rather sterile atmosphere of machine-generated music. **ME**

Desktop Manufacturing (DTM) ARRIVES



Hacking out code is one thing. But what if your thing is form and function, material and shape, ergonomics and aesthetics, the real world interface? How do you get the part you design to ker-chunk out of the machine? Well, the era of desktop manufacturing, or product hacking, has come. Selective Laser Sintering, or SLS, allows users to make a part directly from a CAD model without any tooling.

DTM is short for DeskTop Manufacturing. There are two service bureaus in Austin and Cleveland pumping out parts twenty-four hours a day for Corporate America. But it's not just for techno-Babylon; this process is for everyone who wants to design their own parts and get them made in real-world materials like metal and thermoplastics.

It works like this: you design

your part with a solid or surface modeler on a PC or Mac using the likes of Autosolid or Sculpt 3D. Save the file in .STL format (Sense8 has a hack that will do this for Autosolid, and Sculpt 3-D will have a converter real soon). If you have access to Alias, Wavefront, ProEngineer, or SDRC's IDEAS, they all have .STL output available.

Then send the file on a DOS or UNIX 3 1/2" floppy or streamer tape to DTM for a quote. It ain't cheap yet—about \$200 per hour with a part speed between 1/2" to 1" per hour, so if the part is 3" tall, you're looking at \$600-\$1,200, depending on complexity. Still this is cheaper than manual labor. Maximum envelope is 12" diameter by 15" high. Then the part file is loaded into the 386 that drives the machine and the processor slices the model into layers 0.005" thick. The cross section is used to drive a

Brian Parks

Pop Goes the Toaster

What is the Toaster?

Is the Video Toaster the greatest thing since sliced bread? This new system—built around a NewTek Video Toaster card and a Commodore Amiga 2000 computer—is merely an elegant, affordable

- 3D modelling, rendering and animation system
- television character generator
- video switcher with 4 external and 3 internal inputs
- 24-bit paint system
- digital video effects generator with 192 realtime effects
- dual frame store/frame grabber

The Toaster is the hottest personal video appliance of the year. It's also a plot by Tim Jenison and his buddies at NewTek to put affordable video onto your desktop. For four grand, you get the whole thing—hardware *and* software. You could consider that you're buying the hardware—the Amiga and the Toaster card—and you're getting all the otherwise expensive software for free: 24-bit color paint, 3D modelling, rendering and animation, special effects, all with broadcast-quality NTSC-encoded output.

WHAT ISN'T THE TOASTER?

The swift, flashy realtime video effects of the Toaster dazzle the buyer. Its only real limitation is that it has trouble with “compression” effects—those effects which scale a moving image—when they are done in realtime.

This isn't a problem when you're doing off-line work, or when you're using its many non-compression effects, but when you rotate your moving video image off-axis or use a “page turn” effect, you'll start seeing distortion. This is because the Toaster

can't do pixel averaging, combining images pixel-by-pixel. Pixel averaging takes high-end processing—which would add \$10,000 to the price. Of course, this is the only system to tackle realtime compression effects: the Toaster does passably what other systems can't do at all.

Also, Toaster input requires a video source with a rock-steady sync signal, such as a videodisc player or a camera. Frame grabbing from a home VCR requires a time-base corrector (TBC), and although this would seem to be a critical flaw in an otherwise elegant system, it's not. The Toaster was designed with an eye to the future: the missing TBC circuitry (which would have driven the cost up) will be standard equipment in newer camcorders.


And keep in mind: lighting, composition, and video production are entire crafts—and arts—unto themselves. If you expect to match the production values of network television, you may be sadly disappointed.

Another caveat: technology does not an artist make. Without the artist's imagination, the Toaster is just all the video effects clichés ever done, now wondrously combined on one card.

CROSS PLATFORM COMMUNICATION—TO MAC (AND BACK)

Utilities available for the Toaster allow the exchange of Macintosh PICT or EPS files via floppy disk, and higher speed interfaces between the two platforms are on the way. Todd Rundgren used images generated on the Mac by his Flowfazer screen saver program as backdrops for his *Change Myself* video.

2-watt CO2 laser beam that fuses the powdered thermoplastics to reproduce the cross section in the real world. Another slice of the model is made, another layer of powder is added, the laser moves to fuse the new layer to the previous one, and the process is repeated, layer by layer, until the part is created. Simple, primary, tool-less manufacturing!

The powder that wasn't sintered acts as a jig to support the part, so that complex shapes can easily be made. The great thing is that if you can model it, SLS can make it, whatever the form, whatever the complexity. And it doesn't need to be an engineering gizmo. If you want 3D hard copy of jewelry, sculpture, animation models for story boarding, lampstands, guitar bodies, toys, then SLS can make it. No two alike. Design freedom. Custom design for all. 

WHY THE TOASTER KICKS BUTT OVER THE MAC, OR, YOU CAN'T TOUCH THIS!

The Amiga was designed with the timing constraints of video signals in mind, and contains several processors dedicated to moving data around at the high speeds required by video. On the Macintosh, video is just another sub-system and not as tightly integrated. Sorry, Mac. On the IBM side, Tim Jenison estimated it would require a PC running at 700mHz to achieve what the Toaster is doing!

The video game aspect, which compromised the Amiga's credibility with the business community, allowed developers to work directly with NTSC. The built-in custom chips and multitasking are heavily utilized for rapid, efficient Toaster-Amiga data exchange.

To do their own box, NewTek would have had to have duplicated all the technology that Commodore has so inexpensively provided for them. It would have been far more expensive, and would have missed the high volume market they targeted.

WHO'S USING THE TOASTER?

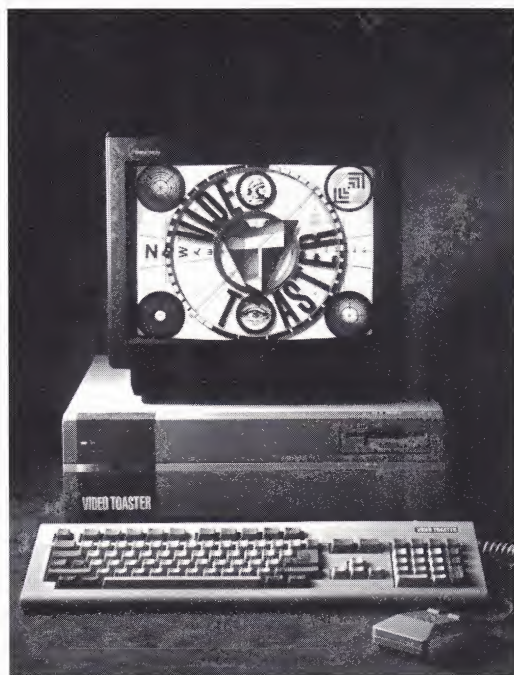
The 3D rendering capabilities of the Toaster have been exhaustively showcased in the Todd Rundgren video. A pioneer Toaster user, Todd makes it look deceptively easy. Toaster neophytes are warned that if they want to render a detailed scene, they should be prepared to wait. Although Rundgren had ten Toasters running for 4 weeks just for *output* alone (exclusive of the time he spent designing the video), the Toaster made it possible to achieve this at a fraction of the cost of a high-end system. This is why a growing number of small industrial video production houses as well as all the major TV networks are popping up with Toasters.

MARKETING: WHO'S BUYING?

The major players are happy if they can sell 100 units of a product, total. In the few months since it hit the

market, several *thousand* Toasters have been sold. NewTek is laughing in the faces of all the small-minded video industry executives who told them there was no market for the Toaster. Laughing all the way to their Learjet.

Plus the Toaster is helping to drive the market towards higher standards of output. Users are now allowed to expect more features and faster-better-cleaner quality.



LEADING EDGE TOASTER DEVELOPMENTS

The Toaster is a product that is evolutionary as well as revolutionary; its system software is constantly being refined and upgraded with more effects, more power. Here is a partial list of 3rd party announcements that will add significant capability to the Toaster:

- The Diaquest DQ-TACO™ Toaster Animation Controller is a board level video animation controller designed to allow the recording of Amiga and Toaster graphics to professional and broadcast video recorders on a frame by frame basis. The DQ-TACO™ occupies a single ISA slot and does not require a bridge board. Price: \$1995. Diaquest Inc.—Tel: (415)

526.7167 Fax: (415) 526.7073

- The VT-1000 from DPS accepts both Y/C and composite video inputs and provides Genlock capability essential for working with multiple input sources. Price: \$995.00

Digital Processing Systems, Inc. —Tel: (416) 754-8090 Fax: (416) 754-7054

- The Vision I TBC offers compatibility with all popular video encoding formats. This should be of special interest to European Amiga enthusiasts—who have been sold on the Amiga for years. Retail price is \$1995.00, slated for shipment August '91.

Vision Quest, Inc. — Tel: (501) 253-5264

- Toaster users can look forward to speedier 3D rendering times with the 40/4 Magnum 25mHz 68040 accelerator board from CSA. An improved SCSI port is also included to allow faster loading of frames stored on your hard drive, as well as an AppleTalk compatible port. Target price is \$4000-\$5000, available around July '91.

Computer System Associates —Tel: (619) 566-3911 Fax: (619) 566-0581

- A complete line of hardware accelerators for the Amiga is currently available from GVP. Prices start at \$899 for the 1 megabyte expandable 22 mHz accelerator card and SCSI hard drive controller, described as "the ultimate hard card."

Great Valley Products, Inc. — Tel: (215) 337-8770 Fax: (215) 337-9922

- Full A/B roll editing on the Toaster is now a reality with the AmiLink/VT. Price for a basic system that will control 3 VTRs is \$6,200 from

RGB Computer and Video — Tel: (407) 622-0138 Fax: (407) 626-5138

- Using Sony's EVO 9700, it's possible to put together a complete Toaster production system that offers professional results for under \$10,000. This two-deck (1 play, 1 record) unit features Hi-8 capability with built in TBC.

Price: around \$5000 from computer or video dealerships.

1991—THE YEAR OF THE TOASTER?

The avalanche of Toaster products is upon us. Many small companies are recognizing the need for inexpensive support gear for the Toaster, and more good ideas are breaking loose. Video will be the predominant medium of the 1990's. Users will be Toasting video all the way.

Much of the technical detail for this article came from an interview with Daniel Kaye, Vice President of Elan Design in Pacifica CA.

A good source of Toaster news, as well as tricks, tips and hints is Breadbox, a newsletter published by Lee Stranahan. — Tel: (818) 505-1464

The Video Toaster; List \$3995.00 from NewTek, Inc. 215 S.E. Eighth Street, Topeka, Kansas 66603 — Tel: (800) 843-8934 or (913) 354-1146 Fax: (913) 354-1584

Jeff Milstead is a Project Leader at MacUser Labs. He's single, blond and cute. ME

COASTER CRUISING

Part II

That ol' demon speed got your brain by the fantail, sitting in those little coaster cars shooting around tracks, over hill down dale at speeds up to 70 miles an hour. Talk about reality check. Coaster cruising has reached epic proportions with 360° looparounds, corkscrew turns, and—even more brain-chilling—cars that travel upside down on the straightaway. This is serious coastering. Almost as good as advanced astronaut training, as some rides generate multiple gravity forces on the loops and curves of their descents.



Kent Bench

On the horizon: new gravity-busting designs to further quicken heartrates and pump adrenalin for the brave and foolhardy. One project for a futuristic coaster is the "Whipper Snapper," which essentially combines a roller coaster with a ferris wheel-type action for a new ride adventure.

Todd Zellinger, a student at the Center for Creative Studies in the College of Art & Design in Detroit, Michigan came up with this. Each car is a gondola which seats two people and rides a track set on long support legs. The car moves along the hills and valleys of the track, but at certain points the supporting legs stretch apart, causing the tracks to widen and the gondola to drop from its aerial position *above the tracks* to hang *below the tracks*. As the tracks narrow, the car is again pitched upwards.

The challenge of gravity is not enough, as creative geniuses seek new worlds of coaster craziness. One aspect of coaster mania that has brightened up considerably is the "dark ride," typically enclosed in a darkened building with lighting effects. Disneyland's Space Mountain and recent arrival Cedar Point's Disaster Transport attest to the interest in multimedia coaster rides.

Going beyond gravity into the dimension surreal, Vivid Effects, the Toronto-based Virtual Reality company, has proposed a new layer to dark ride coasters. Their Mandala System interactive software plus live-action projected environments not only hurls you over track, but engulfs you in a virtual universe: 3D video comets and other astral projections whizzing toward the coaster car, video-game fashion. This is good, but it gets better—riders can reach for the spinning meteoroids and if they connect—with "virtual touch"—they can bounce the comets off their hands. Later, as the car speeds through a tunnel, waving arms leave rainbow-colored streaks glowing on the walls.

Virtual coasters—now there's a thought! The data glove and body suit transformed into a gravity-defying, reality-punching roller coaster ride where the next stop might be Rod Serling's favorite zone... **ME**

Louis M. Brill

Louis M. Brill specializes in reporting on high-tech entertainment. Currently he is writing a book on the history and future of film exhibition.

Virtual Audio

3D Sound Wizard Christopher Currell

Sarah Drew and I are sitting in the middle of the waiting room at Heyday records with blindfolds on. We're here to try out Chris Currell's 3D sound system. Sounds begin to emanate and appear around the room. OK. We're not dealing with pop songs here. Somebody walking past me opening a wrapper. The phone rings (Yes, somewhere back there in my subconscious I've noted that the phone was through the archway in the next room, but visible from where I sit.) The placement of the ringing phone corresponded perfectly to where the phone is. Ron Gompertz, co-owner of Heyday, comes in and starts talking. He's walking through the archway and towards the couch where Currell is sitting. There's a knock on the door. It's Connie Champagne coming up from the studio where she's recording Nico's classic Velvet Underground number—All Tomorrow's Parties—for the first-ever 3D record. "Quiet," Gompertz cautions. "They're checking out the 3D sound system." The doorbell rings again. Somebody else is just dropping by. Gompertz walks across the floor and out the door, announcing that he's going out for a soda. More people stop in. Each in turn is warned to be quiet. Somebody starts running a vacuum cleaner. "Lift your legs please," a voice says—too close for comfort. Are they really running a vacuum cleaner near my legs while running this sound experiment on my brain? I resist, holding my ground firmly.

None of it happened. But dig this. The knock on the door was exactly where the door is. The feet moved across the floor and I could follow that movement, the rustling of the bodies. The phone ringing just where it's supposed to ring. Every movement in space is fluid, just as it's supposed to be. More fluid, for certain, than the best VR system appears to the eyes. DO YOU UNDERSTAND THE IMPLICATIONS OF THIS!?

Christopher Currell does. Currell, who lives in Los Angeles and Tokyo, is a hacker, a businessman, a musician and owns Audio Cybernetics Studios in LA. He has worked with musicians ranging from Michael Jackson to Japan's Number One Band, TM Network. Onstage, during Michael Jackson's BAD Tour, he performed about sixty percent of the music on two Synclaviers hooked up to the SynthAxe. His Japanese-funded company, Virtual Audio Systems, is producing the finest 3D sound system in the world.

R. U. Sirius



Jay Blakesberg

MONDO 2000: What attracted you to 3D sound?

CHRISTOPHER CURRELL: I always wanted to record sound exactly the way we hear. The ramifications of this are far-reaching. For instance, I just wrote a paper for the Japanese Space Agency on using this technology to alleviate stress, because they're going to send an astronaut into space in 1998. They're now collecting new data that will help in the training process and in-flight operations. I found that normal, two-dimensional recording actually *creates* stress. The way to explain it is in terms of selective hearing, "the cocktail effect." Normally, you selectively tune out certain sounds and listen to others. When you record with two-dimensional technology, that process is no longer retained. It becomes a wash. The mind makes an effort to pull apart the individual sound components, but is unable to do it because the selective hearing aspect is not encoded. With Virtual Audio technology, the ability to selectively hear is retained, which is critical for relaxation and meditation. An astronaut is subjected to mental stress and claustrophobia over time. Using Virtual Audio, some of these adverse mental effects can be eliminated. We will be able to create a Virtual Audio alternative space for the astronauts. Over time, this will result in less claustrophobia, and it's quite simple to do.

M2: It's not unlike Virtual Reality in that it's a space—almost like an eco-niche for our cramped psyches..

CC: Absolutely. Through this technology, the human auditory system has been very surgically detailed by means of advanced computer technology.

SEVERED HEADS

M2: What was the procedure in developing your system? Was the hearing process translated into binary mathematics?

CC: Precisely. Like many people, though, we started with binaural dummy recording. Many people have tried to simulate the human head, even going as far as using real human skulls.

M2: *Psychic TV* did some of that work.

CC: Yeah, various hackers have messed with it. Until very recently it was done anthropomorphically by using a head and trying out different surfaces and contours—the eyes, the nose, and various types of microphones. With research, we've been able to define it mathematically. Since the algorithms are known, we can just put it in a computer



program and make it interact.

Currently, Virtual Audio Systems is creating a special computer. We're calling it the Virtual Audio Development System. It's a supercomputer that will take sixteen channels of interactive sound, move them around in three dimensional space, and do room reverberant calculations—all in real time. You can design the rooms with a 3D-modeling type of interface. The current specification calls for up to sixteen walls. Each one of these walls is assigned absorption and reflection characteristics, along with air density, etc.. When you look at the computer screen, you see a wire frame dummy head in stereoscopic color. The interface is transparent to the user and color-coded—Channel one might be yellow and you'd see a yellow cursor on the screen. You can then use a flying mouse or a data glove to move the cursor around the dummy head image, and the sound will move around your

head in realtime.

What's really interesting is that we can specialize up to sixteen inputs, all at full bandwidth. Real hi fi. We're using twenty bit converters and thirty-two bit internal processing. But you can also go digital in and digital out. It handles all recording interfaces so we can synchronize with multi-track recorders. The computer itself is like a sequencer in which we can record trajectories. We press record, the sound goes in, you move it around and we make our trajectories. The computer memorizes it and plays it back. You have a list of trajectories for sixteen channels x, y, z axes and you can change them. Depending on the scaling, it could be feet, inches, yards from the head. In the 3D modeling program, you design a room, put the dummy head icon in the room, and automate the dummy head walking around the room. You could potentially model a concert hall before the fact and create the

filters and EQ that will be used in the actual event. This machine is probably going to cost \$500,000.

M2: Expensive!

CC: Yes. We're really designing it as a research system. But we are also making a high-quality six-channel Virtual Audio Processor for VR Research and for theme parks, for about \$5,000. The next project is to make a four-channel version, same quality, on one chip for \$500. We'll have the four-channel version in about three years. At that point we'll be able to implement it in video games, home video, and keyboards. People will be able to process space for their TV or VCR. The applications for the Virtual Audio Development System that I am currently developing in Japan will serve as the audio module for a larger VR system. It may be forty channels instead of sixteen. I'm thoroughly convinced that this audio technology has to be married to visuals to reach its full potential.

MAKING SENSES

M2: These developments all seem like stepping stones to being able to really map the brain.

CC: Think about it—we're trying to synthesize reality. That's a heavy concept. Reality's not some simple little video game. People think that we only have five senses, and that's bullshit. We have at least fifty-five. Without the knowledge of how many we have, how can we begin to understand their interaction in order to synthesize them? Some things we'll never be able to synthesize. But by understanding them, we'll be able to creatively dub them in by having key elements there. You can fool the other senses. With just Virtual Audio alone, you can feel breath on your face, your hair being pulled... it's weird shit! I've fooled myself. This morning, when I was checking the headphones, I heard a knock and the door opening. I turned around and it was shut. I made the tape, I should know. It fooled me anyway. **M2**

The Go Tablet

—Take One on Rising

Denise Caruso

Since the two Steves—Woz and Jobs—brought the Apple I to the world more than a decade ago, the hallowed halls of the personal computer industry have gotten more than a little funky. Despite all the amazing advances in computer technology, ordinary schmoes still couldn't do much more deeply thrilling tasks than making underline marks in their short stories and putting their address books into a database. Then they'd have to turn on the computer, find which directory they'd put the database in, figure out how to open the file, and look up the required phone number—a formerly three-second operation that a digital computer might transform into only 10 minutes, if the gods were benevolent.

Those first clunky boxes hooked up to chunky keyboards did get a little smaller over time, and stopped looking quite so much like props for a bad sci-fi movie. Laptops were an improvement, but they still required use of the loathed keyboard and weighed enough to plump chiropractic waiting rooms. The Macintosh with its mouse and so-called "graphical user interface" made computers exponentially easier and more powerful. But those who wanted access to that power still had to get stuff into the box by distorting their upper bodies and pecking on a big slab of plastic that's started a nasty neo-Industrial

Revolution disease called carpal tunnel syndrome.

IN NEW CONVENIENT TABLET FORM

But at the beginning of this year, a particularly muscular gust of fresh air blew down the industry's musty halls. A young upstart company called Go Corp., liberally sprinkled with pioneers of the PC business, unveiled a gorgeous new pen-based computer system with vast potential to change the way the world looks at, and uses, computers.

Pen-based systems, also called "notepad" computers, use a stylus for input. No keyboards, no cords, no listing to starboard or port from carrying a "portable" computer on one shoulder. And what's gorgeous about Go's PenPoint system is that it isn't a baling-wire-and-chewing-gum solution. It doesn't just shove all the workings of a keyboard computer into a smaller slab of plastic and silicon that works independently of a wall socket. PenPoint was designed specifically to let users hold their computer in one hand and write directly on the screen with the other, in the same way they now use a clipboard and pen.

Instead of typing commands or clicking on buttons with a mouse, PenPoint is what's called "gesture-driven." To make the computer do something, a user marks the screen with gestures common to anyone familiar with

putting pen to paper: documents are numbered by pages, arrows move those pages up or down, an X or a line through a word deletes it, a circle makes it editable, etc.

SCRAWL HERE, PLEASE

The system is good at recognizing handwriting—in fact, it can "learn" a user's style over time—but it wasn't designed for long, handwritten notes. Since handwriting is as individual as a fingerprint, training a computer to read it quickly and accurately is a monumental task, years from perfection. So PenPoint was designed to build applications for mobile users who need to do things like send and receive faxes, fill out forms, do inventory reports and who need mostly to refer to data, not generate it.

This is a revolutionary way to compute, and Foster City-based Go is betting the farm that it will open a whole new world to people who'd never before considered that a computer could be useful to them. Common wisdom is that only about 30 percent of the people who *could* use a computer, do. Either they don't sit at a desk all day or they work in groups.

PROCESSING ON THE GO

The way the computer industry works, a company with a new idea—no matter how big the concept—commits the gravest sin by publicly biting off more than it can chew. To satisfy the curmudgeons, Go decided to come out of the gate focusing on a narrow field of potential customers, "mobile professionals" like Federal Express workers, insurance sales folks and claims adjusters who work in the field. But plenty of other interesting applications are in the works, partly because Go bucked conventional wisdom and built PenPoint from scratch as an "object-oriented" operating system.

An operating system, acting much like the grooves on a record album (remember those?),

provides the means for a computer to "play" software applications in much the same way that a record's grooves enable a turntable to play recorded music. Object-oriented programming systems (known by their somewhat oxymoronic acronym, OOPS) are becoming popular because they let programmers write smaller, simpler programs which are exponentially



more powerful. Instead of having to write the same lines of code over and over again, programmers draw on a library of pre-programmed "objects"—think of them as blobs of data which describe something, like "document" or "video" or "sound" or "numbers"—and connect them, kind of like a kinetic Tinkertoy

construction, via the actions they want the objects to perform.

PenPoint's object orientation means not only that it is easy to get information into and out of other, more standard desktop computers via a network or cellular modem, but it's also what's called "scalable"—making it possible to add or subtract various components of the operating system so that it can

ways to use PenPoint as a basis for video and sound editing. Others are devising software that enables them to write musical notes directly onto the computer, then "play" them via a MIDI connection to an instrument. Some are developing wireless connections to remote technical databases via packet-radio networks, to look up medical case histories on the fly or consult toxics-antidote databases for emergency medical use.

Scientists may be able to use such a system to draw chemical structures and compare them to databases of known plant compounds for pharmaceutical use. Utility companies may use a Geographical Positioning Satellite (GPS) receiver and a CD-ROM full of maps, so service personnel can see their exact positions while servicing an underground sewer, power or gas line, or for doing an instant, on-the-spot analysis of energy savings in a home energy audit (this application is being demonstrated now). Archaeologists may use them to enter field data while at a remote archeological dig.

With this kind of functionality built in, it's not surprising that PenPoint blew in with enormous support or that its team helped start the early PC revolution. Two of Go's founders, Jerry Kaplan and Robert Carr, were, respectively, principal technologist at Lotus Development, of Lotus 1-2-3 fame, and chief scientist at Ashton-Tate,

the company that brought databases out of the world of mainframes and onto the desks of personal computer users.

BUT HERE COME THE BIG GUYS NOW

Some 40 computer and software companies, liberally sprinkled with other PC pioneers, announced they had PenPoint projects already underway. Just one example is Slate Corp., which has built an application development environment for PenPoint called PenApps; the company landed Dan Bricklin and Bob Frankston—the original programmers of the seminal electronic spreadsheet program for the Apple II called VisiCalc—as heads of its development effort.

Even the monolithic IBM Corp. has licensed the system for an upcoming machine. And Apple Computer, widely known to be building its own notebook computer, sent a noticeable number of attendees to the PenPoint announcement. Despite its infamous NIH bias ("Not Invented Here? Not interested"), it's obvious Apple is seriously evaluating PenPoint, if for no other reason than to enable its Claris Corp. software subsidiary to develop applications for the new operating system.

FIGHTING THE WORKFORCES OF EVIL

Despite wide support and elegant technology, Go has a tough row to hoe. Microsoft Corp., the reigning leader in PC operating systems with DOS and Windows, has been peddling a demo of its very own pen-based operating system, PenWindows, around town—hot on the heels of Go. (Microsoft is sprouting a nasty reputation in the industry for such pre-emptive strikes, which tend to turn creative, energetic software developers into fence-sitters. They call Microsoft "the Evil Empire," and they call its chairman Bill Gates "the Prince of Darkness.")

PenWindows is an extension of Microsoft's Windows operating system, and some people think this fact alone is sufficient to quash Go and PenPoint. Those who've seen it say that it looks "just like" Windows, a slow, clunky graphical user interface that was announced in early 1984 and finally was improved just enough to be seen in public. Under these circumstances, being "just like Windows" doesn't seem like much of a feature. The point, pardon the pun, is not to stick old applications into a notebook, but to give entrée to the world of computing to people who don't know and don't care about word processors or spreadsheets.

In fact, Rich Shapero, formerly president of the networking company Sitka in Alameda, Calif., believes the utopian dream of "one world, one operating system" has begun to rankle. A flood of portable or special-purpose computing devices is already on the way, so diverse that no one company could possibly support them all. Sitka is building a PenPoint version of its Tops cross-platform network, so there's good reason for him to think (albeit self-servingly) that the network itself will provide the connections between them. "Go is the tip of the iceberg," says Shapero. "The end is not to restrict the applications, but to free them to be as specialized as they want to be."

Of course, one cannot reasonably expect that everyone who's excited about the possibilities of a system like PenPoint can be as succinct as Shapero. Award for most obfuscatory statement about the PenPoint goes to Alok Mohan, vice president of NCR Corp.'s Workstation Products Division. Get a load of this: "We view pen-based computing as a technology reset point, which will result in a new paradigm in how and where computers will be used," Mohan said in a press announcement.

Gosh, I hope so. Don't you? 



work on any device from the tiniest hand-held calculator-type computer to a huge electronic whiteboard, incorporating whatever kinds of "objects" are required for the job at hand.

YOUR DATA NODEBOOK!

For example, some intrepid entrepreneurs are already working on

Street Tech presents brilliant hacks, street-tough cracks, hi-tech scams, and the low-end fantasy machines of the future. Got something you would like to share with us? Send submissions or article ideas to: Gareth Branwyn, Street Tech, 2630 Robert Walker Place, Arlington, VA 22207.

Guide to Hacker Zines:

From Anarchic Adjustments to Techno-phun

GARETH BRANWYN

Hacker zines are small, often funky little publications that cater to the subculture of hackers, crackers, and others who populate the lawless frontiers of cyberspace. The debate over frontier justice, the need for new ethics, and the nature of digital good and evil fill the pages of these zines. You can also expect to find technical information on hacking and phreaking, plus lots of gossip, shouting, and name-calling in the letters columns. Check these out: some very bright, energetic, and unruly people call these publications home.

TAP (\$2.00 from PO Box 20264, Louisville, KY 40250): *TAP*, which currently stands for Technological Advancement Party, is alive again after a long hiatus. This digest-sized magazine grew out of the Yippie movement with its penchant for monkey-wrenching the state and big corporations. Their original focus on phreaking has now expanded to include hacking, hi-tech electronics, scams and rip-offs, anarchist tactics, and generally "forbidden" information. *TAP* also operates a bulletin board containing similar material and a library of all the major electronic hacker zines (see below). *TAP* Online can be reached at 502-499-8933.

Iron Feather Journal (\$2 from PO Box 1905, Boulder, CO 80306): *IFJ* is a dense assault of anarchism and "techno-phun." Its pages are crammed with articles, newspaper headlines, graphics, and cultural litter. They too are branching out from being specifically about hacking to containing broader news and information of interest to the hacker/anarchist subculture. Funky and fun.

Intertek: The Cyberpunk Journal #1 (\$2.50 from Steve Steinberg, 325 Ellwood Beach #3, Goleta, CA 93117): This is the first issue of *Intertek*, a reincarnation of the old *W.O.R.M.* magazine. It is professionally produced with a clean design and excellent graphics. It contains everything from system-specific technical information to essays and interviews with such cyberspace luminaries as John Perry Barlow and Dorothy Denning. Designer drugs, cryonics, and nanotechnology are also covered. Keep an eye on this one.

Cybertek (\$10/yr. from OCL/Magnitude, PO Box 64, Brewster, NY 10509): Another cyberpunk/hacker's zine covering all facets of computer technology, culture, and security.


There are a number of electronic hacker's journals available via Internet and on various hacker

BBS's such as *TAP* Online (See above). These include *Phrack Classic* (not to be confused with Neidorf's *Phrack*), *A.T.I.*, *Phantasy Magazine*, and *The Syndicate Report*.

The Computer Underground Digest is an on-line forum dedicated to sharing information among computerists on hacker arrests, legal cases, ethics and other timely telecommunication issues.

The *EFF News* is the official organ of the Electronic Frontier Foundation. Want to keep abreast of that organization's activities? If you have an Internet address you can get on the *EFF News* mailing list by sending e-mail to:

effnews-request@eff.org.

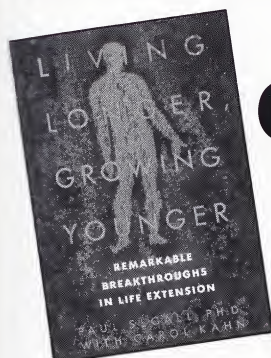
In *Mondo 2000* #3 we carried an interview with Emmanuel Goldstein of *2600* and Rop Gonggrip, editor of the Dutch journal *Hack-Tic*. Since *2600* would have to go at the top of any list of hacker zines, we would be remiss in not mentioning it here. They can be reached at PO Box 752, Middle Island, NY 11953-0752. Issues of *Hack-Tic* are available for \$2.30 U.S. from pb 22953, 1100 DL Amsterdam, The Netherlands, or on UUCP: ropg@ooc.uva.nl 

Errata!! In our last Street Tech column we neglected to credit Peter Sugarman as the author of the Garage Multimedia piece. The introduction to the column was supposed to read "...and the 80's underscored it with a vengeance." Saying "the 90's" may make us look fast and forward-looking, but it was a typo nonetheless.

Lady Ice

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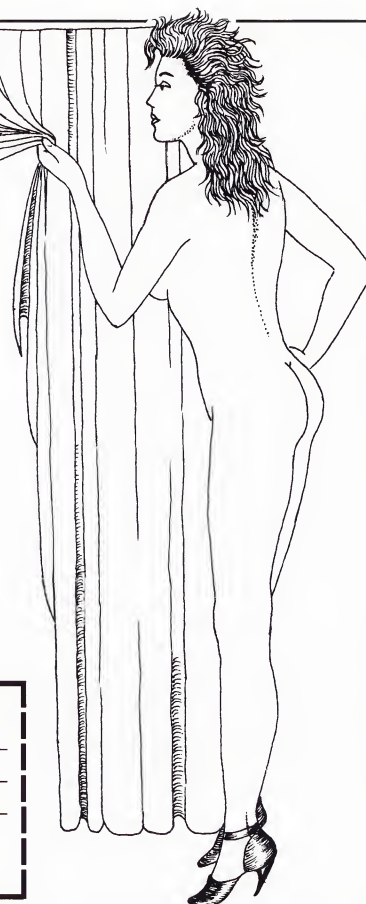
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D.I.Y. Spy

The best undercover workers are the most unlikely. I met Max Freeman ten years ago and was not impressed. He's not a techie, much less a cracker type; we talked about language and sex and antique religions. When I ran into him recently, missiles were flying and he was looking tormented. We talked about weaponry and countermeasures and governments and—horrors, he started spewing this hateful subversive trash. Highly specific it was, too: he knew about this stuff because he'd done it.

Max Freer

You and I know how salacious espionage is. Spying has been sexualized for us. It's not just voyeurism: it is potency, domination, sadism. And it is still so nasty because it has never been exposed to the sanitizing UV lamps the academics shine on sex—Must We Burn Le Carré?

Political justifications and legal or moral disclaimers cannot redeem what follows. It is nasty and cheap, and everything that street tech hopes to be!

—*St. Jude*

The nature of espionage has been transformed by a decade of breathtaking progress in miniaturization. Even James Bond never had such tiny toys. We are entering a new age of Lilliputian marvels where everything electronic is available in a version that is *portable, powerful, and programmable*.

Portability has had the greatest impact. Phones, computers, and a growing family of related goodies are now free from the ties that bind. Care for a six-ounce cellular phone? Need a one-pound portable computer? How about a palm-size video camera? Miniaturization has gone so far that, for a growing number of items, the clumsy span of the human hand sets the size limit.

Still, each of these devices becomes more **powerful** every six months or so. Everything runs faster, does more, has a longer battery life and costs less. But more important: everything can now talk to everything else. Any portable can accept data from videocameras, or scanners, or another PC.

While it's nice to carry an interlinked array of the latest equipment in a gym bag, it's even nicer to be able to set it in place and control it remotely. Any combination of phones, modems, computers and video cameras can be programmed to activate on demand. And that request can come from a cellular phone halfway around the world or from a voice-activation circuit wired into the onsite sys-

tem. **Programmability** not only provides remote access; it allows the nature and focus of an operation to be modified according to circumstance.

Covert operations are the essence of spying. One may need to perform surveillance, copy documents, listen in on private conversations, film activities, or destroy information. High-tech tools make these and many other activities simple and relatively safe to carry out. High-tech still needs lots of low-tech engineering marvels to help it along. A Swiss army knife, crazy glue, a tiny titanium flashlight, a voice-activated tape recorder, and any of the cheap disposable cameras now available should be part of your basic equipment. I won't rehash the tried and

true here. You should already know that carefully placed voice-activated tape recorders can capture any speech within range. And, properly placed, a small video or still camera can be given a wide field of view from inside briefcases, backpacks, shopping bags or purses.

SURVEILLANCE: VISUAL, VOICE & REMOTE

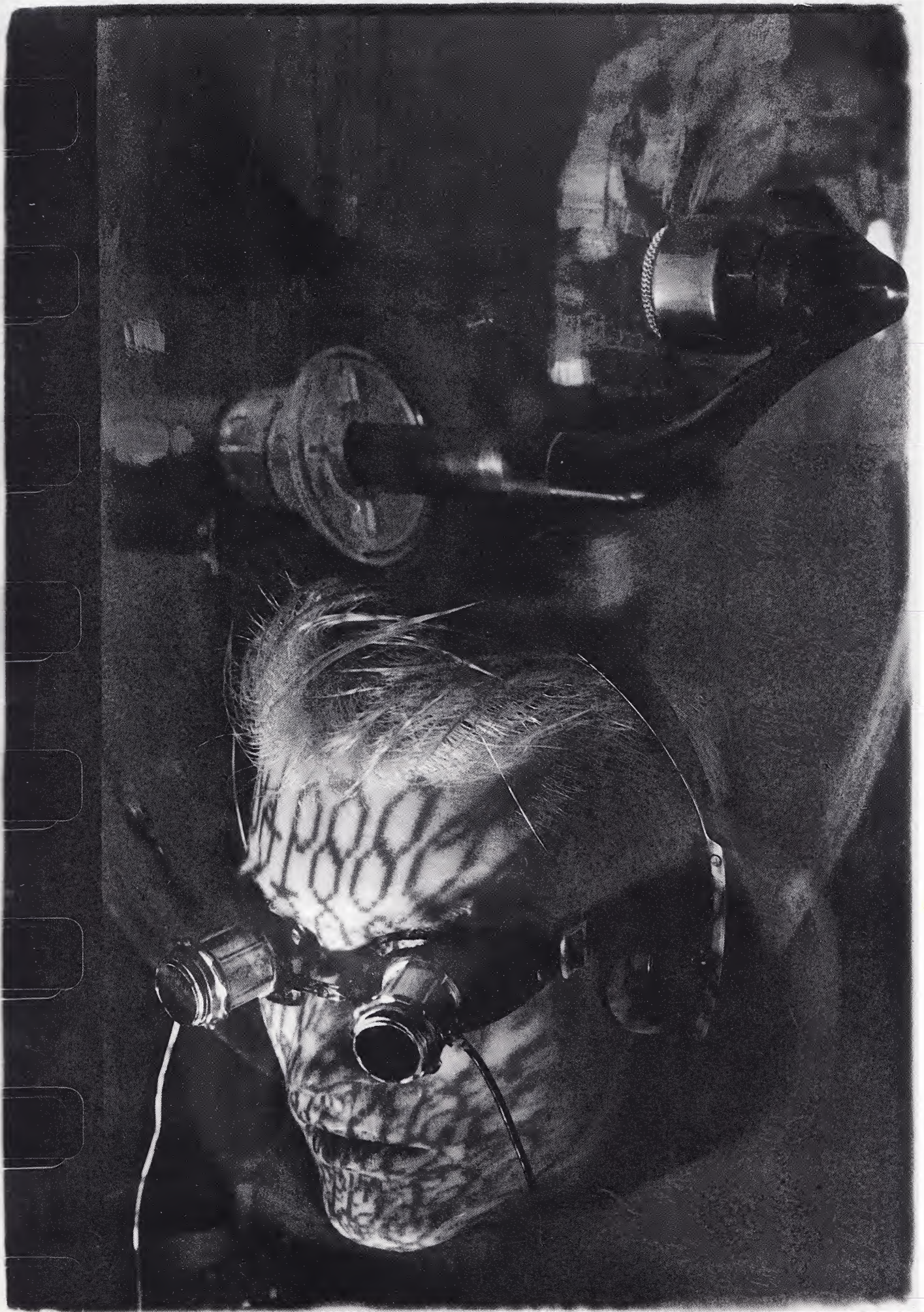
Pairs of walkie-talkies that are battery operated, weigh only a few ounces and have tiny voice-activated lapel mikes are available. Even the units sold to children at Toys 'R' Us have a range of several hundred yards. These are invaluable to team surveillance. There is in fact a full line of functional kids' spy toys that you may find occasionally useful. The brand is "SpyTech."

A lapel mike can be placed anywhere and makes an excellent room monitor system. If you can't afford to be within the normal range of in-place units, you can extend that range by using a wide frequency scanner. Just tune the scanner to the frequency listed on the walkie-talkie. You will now have at least double the reception range.

These scanners are also useful for monitoring the activities of security guards equipped with communication equipment of any kind. Ditto for monitoring both police and fire calls.

A pair of these scanners will give you both halves of a conversation on either home-portable or cellular car phones. Each phone sends and receives on different frequencies, so you'll need two units to hear the entire conversation. *This is quite illegal: keep it in mind.*

A wide variety of products are around to help you listen to phone conversations over standard phones. Most of these cost under five dollars. The simplest gear are line splitters. These allow you to send the conversation to your team over the target's own phone



system. Basically you have added another extension to their system. Once you've captured the voice traffic, you are not limited to listening—you can get equipment that records every time the phone on the other extension is used. In some states you can also buy equipment that will give you the phone number of each incoming call. When that information is combined with a reverse phone directory (i.e. ordered by street and number) you can have the name and address of most callers.

Although it is possible to place a very small voice-activated tape recorder inside the largely empty casing of some business phones, *this is not worth the risk*. The safest place to listen is as far away as you can work. Access to phone lines is easier and usually safer than access to phones. If you have to do it yourself, try phone system stores nearby. You can buy all you need to quietly redirect the target's calls to your location. Buy only redirection equipment with remote programmable features. Whenever you're not actively listening, reprogram the equipment to stop redirection. If you don't, and your equipment is discovered, you will have given your own phone number to the discoverer.

Palm-size video cameras make remote surveillance and recording possible. Several manufacturers have models made for use underwater. They are perfect—once repainted from their gaudy yellow to a flat neutral tone—for all-weather outdoor work. The best models can be voice activated. These can be secured in commercial drop ceilings, attached to local roof tops, or placed in painted foam packing cases and attached to utility poles. Under these circumstances regular access is a must. The problems associated with in-place cameras are so substantial that you'll soon realize why the good guys always rent the room across the street to work from.

THE VIDEO STAKEOUT

The ideal of a remote-control video stakeout is now possible. While far from perfect, it's a big improvement on daily clambering over roofs or climbing utility poles while trying to look nonchalant. The following rig literally mimics the latest spy satellite technology in every detail except the fly-over view. If you're a model plane hobbyist even that can be managed. A total of just under 15 lbs. of equipment must be hidden or boxed so it is inconspicuous and has an unobstructed view.

The heart of this system is a very high-powered lightweight portable computer with at least two open slots. The computer needs the longest battery life and the most RAM you can find. Now connect a video camera with a high zoom rate. The connection is made using a video input card. A number of these cards now have software that allows the computer to control the camera. That's the type to get. The second slot is used for an internal uninterruptable power supply card. That card can double the life of this system. A cellular modem is attached to the serial port and a cellular phone is connected to the modem. If the system can sustain additional weight you can connect one or more portable power pacs to greatly extend system life. Once this system has been tested for remote control and smooth operation, disconnect the video display. This will triple the life of your homebrew spy satellite system.

If you have all of the power supplement equipment attached you should enjoy at least 24 hours of surveillance time between battery changes. Because of the high light sensitivity and extreme zoom range of the current generation of palm 'corders, they work remarkably well even at night, by ordinary street light or bright moonlight.

The computer is now ready to be remote controlled using any one of several remote control software packages. These allow the operator of a computer connected to the portable by phone to control it exactly as if he were at the portable's keyboard. So while the portable unit has no functioning monitor, the controlling computer's monitor works perfectly.

The controller can now zoom and focus if the camera control software permits it. Mostly you want to leave the sound channel on and set up a VCR at the controlling site, where you can be warm, dry and *safe*. It takes some experimentation to determine the best way to control your station and to record its observations. It is very important to record remotely, as this will free you from having to change the tape every few hours.

ON WHEELS

Tracking cars at a distance is much simpler. Glue a cheap Citizens Band radio and a portable power pack onto the undercarriage of a car and leave it on tuned to any frequency. The unit is easy to monitor with a scanner. You can follow from a good distance—perhaps two or three blocks, better on parallel streets. A better voice-activated CB can be placed inside the vehicle to let you listen in. If you have time and good access, the unit can even be wired into the vehicle's electric power system to give it long life.

A note about glueing. Ideally you should retrieve every piece of equipment you place, but this applies *if and only if it's safe to do so—consider the ambush possibilities if your equipment has been discovered*. Anything left in place should be secured to prevent it from giving way with possibly devastating consequences. Glueing equipment to small pieces of waterproof corrugated cardboard can simplify later removal. Just glue the cardboard to the desired surface. Later

you can quickly and easily cut or twist-tear the equipment from the cardboard.

In an emergency you can take any portable AM radio, turn it on and tune it between stations. Glue it inside the wheel well—this can be done on a walk-by if you have some crazy glue. The resulting electronic feedback squeal can't be heard, but your scanner can pick it up. It can be followed, but not at great distances.

A DIP IN THE DATA POOL

The activity that has been made simplest and safest is gathering data. Whether you need copies of documents or computer files, retrieval is now a breeze.

The basic equipment is our standard cellular phone-portable computer combo. For this type of work you can assemble a kit weighing just three pounds. For copying documents you add a hand scanner and a small folding child's art stand. The art stand will help to secure each document in place as you scan it. Once you've scanned all the necessary information, you can send it anywhere in the world over the phone link. It is in your best interests to use encoding software on the documents before transmitting them. The intelligence community can decrypt any document encrypted using standard encoding software. But no one else can. If the highest level of security is a must, get encryption software based on RSA. Even the National Security Agency will need a long time to crack it if you've chosen a very large coding value. After transmitting the data, *destroy all the files you have created while working*. Professional spies who *have* been convicted have been nailed on the basis of the documentary materials they had in their office or residence when caught.

Collecting computer files is just a little more complicated. Add a data transfer cable and software

to your portable and then connect the target machine to yours. Current software now lets you inject a copy of the transfer software into the target machine. You're now in control of the target system. This works even if the computer you're connected to has no floppy disk drive. All you need is the ability to turn it on. Again—avoid the temptation to leave the premises with files on the computer. Encode, transmit, and then clean your system of everything including the transfer software.

Once at work in the target machine, you can also inject a program like Magellan or XTREE GOLD PRO. These let you quickly examine and if necessary modify any file. They can automatically search all files on any key words or phrases you're interested in following up.

Computer networks are just as vulnerable to having extensions and phone connections added. A power user can easily open any computer, then rig a cellular connection for ongoing access to the system. You also have to add a hidden start-time batchfile extension to put the remote control software in background mode. Again, the cellular phone should have its speaker and ringer disconnected. Don't program the control software to call out at a specific time; this will leave a copy of your number behind. Always call in to make your connection, and always call from a different phone. Never use your own phone for these calls.

SPOOKING THE SPOOKS

As you can see from our little excursion, espionage has been democratized. It's a game that anyone can play. You no longer need the resources of the KGB behind you to shine a little light on what your government is up to. *If your government is up to what my government is up to, it needs a lot of light shed on it.* Should the broad-

ening of democracy not be your primary goal, you'll find these tools and techniques useful in other, more mundane situations.

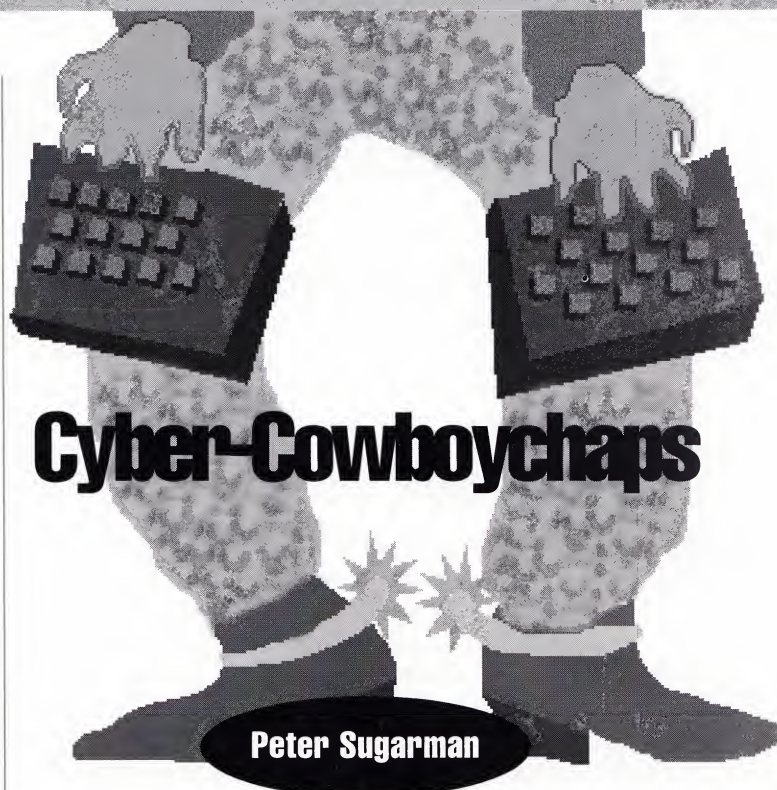
A word of warning: Most of those stores that specialize in the sale of commercial spy tech have connections to Big Brother. So don't shop there. This isn't a joke. For example, twenty years ago when shredding machines were rare and expensive, the principal U.S. manufacturer was a CIA proprietary (secretly owned) company. This enormously simplified the agency's task of finding out who thought they had secrets worth keeping. Every returning warranty card and repair claim was gratefully noted. When you do shop, be sure to buy everything new, in unopened boxes.

Also, acquiring some of these items in ways that are untraceable presents real problems. *If you can't solve these problems, do not proceed!*

Don't shop by catalogue. It's almost impossible not to leave too many traces. I know that the specialized goodies in electronics, camera, scientific, and phone catalogues are tempting. But with a little ingenuity you can make do with parts from hardware stores, Radio Shack-type electronic shops, phone, computer, department and even chain drug stores.

When you get your new gear home, work in a completely private space and wear dishwashing gloves every time you touch your toys. Before a tool is put into play, trash all its packaging, manuals, etc.

"Where does he get those wonderful toys?" the Joker asked wistfully as Batman scarpered on a monofilament. Today's would-be player knows the answer. You can buy the best there is at the nearest Radio Shack. But if you're careful you'll pay cash, spread your business around, and toss the warranty. **M**



As CPUs shrink, mini to micro to pico, they are ducking inside home appliances, creating so-called "smart machines." A logical extension of this trend would be "smart clothes"—fashion statements with computational capability. Along with hardware and software, "ComputerWear"—softwear?—will be part of the lifestyle of our fast, smart, and scientific future.

Bulky TV monitors have mini-fied into head-mounted "eyepatch" displays like the Private Eye and the military Heads-Up Display (HUD). Tiny printers like the Kodak Diconix permit portable hard copy. So...

With an eyepatch monitor, and a CPU sewn into your epaulets, your cyberwear system is almost ready to go. But what's missing? Well, we still have to do something about that tail-finned wonder, the keyboard.

Here's a modest solution I call "Keyboard Chaps."

Imagine half a computer keyboard mounted on each thigh of your pants, upside down. The keyboards could be housed on a separate piece of clothing. I first

considered an apron, but after contemplating Gibson's computer cowboys, I decided a pair of rodeo chaps in a nice Naugahyde might just be the ticket. The keyboards could even be inflatable—flexible when slack, rigid when engorged.

As unsettling as might be the image of wandering computerists fingering their own thighs in public, there are practical reasons to pursue this design course. Our bodies are not designed to work with the slab keyboard: the slab is rigid and straight. Our wrists and hands approach the keyboard at an angle. The disparity between that angle and the slab leads to stress-related problems such as "carpal tunnel syndrome."

Here in the closing moments of the 20th century, this issue is beginning to be addressed. There are several designs proposed for a split keyboard, one that matches the natural inclinations of the hands. As neither the Tony, nor the Swedish model exist yet, Cyber-Cowboy Input Chaps (patent pending,) ride tall in the saddle as a viable future option. **M**

Winnelife!

an Interview with Steve Roberts

Gareth Branwyn

Eight years ago, Steve Roberts hopped onto a computer- and radio-equipped bicycle and left suburbia in his dust. 16,000 miles later, he is about to finish building the third version of his high-tech bicycle. This one has enough hardware on it to satisfy the biggest techno-weenie, but "heartware," not hardware, seems to keep this trail-blazing nomad on the road.

MONDO 2000: Steve, for starters, please give us some background on "high-tech nomadness" and how you got into it.

STEVE ROBERTS: Well, let's see. Back in 1983, I was into something that probably sounds familiar to most people—that is, working harder and harder at something that I enjoyed less and less, trying to pay for something that I didn't really want. I was doing freelance writing and consulting, trying to pay for a house in Midwest suburbia.

I started thinking about those great global questions that one thinks about—"what is success after all?" I concluded it's the ratio of all you put out to all you get back. I decided that what I really wanted to do was build a lifestyle out of my passions. I listed them, and they were things like travel and adventure, falling in love, bicycles, computers, networking,

ham radio, tinkering with electronics, and publishing. So, I just decided to weave them all into a lifestyle and leave out as many of the middlemen as possible.

M2: When did you actually hit the road?

SR: The fall of 1983. I traveled solo for about 10,000 miles in the original version of what was then called the Winnebiko. I carried a little Radio Shack model 100 laptop, and lived on Compuserve. I switched to a Hewlett-Packard Portable Plus somewhere around mile 7,000. And that's what led to the *Computing Across America* book. It was one of those long boring west Texas days that decided me that I should be able to write while riding. So I started building the Winnebiko II, which hit the road about a year or so later, this time travelling with my friend Maggie Victor, who has her own recumbent bike.

M2: Did you totally cut out from your former life? Did you liquidate everything?

SR: Yeah, I started the whole thing with a big yard sale. I essentially sold everything I owned. I had some debts, but when my house finally sold, I had about \$300 left. I was as happy as I'd ever been.

M2: Were you already into cycling?

SR: Not really. I had the basic

ten-speed and would occasionally do a weekend ride or little afternoon tours around the local farmland.

M2: How long have you been off the road?

SR: A little over three years now. I've been living in various labs building the new bike, most recently in the lab sponsored by Sun Microsystems. In Mid-July I'm out of here—back on the road fulltime.

M2: Can you give us a thumbnail overview of the new bike?

SR: I'll try to make this quick—it's pretty complicated. I have some interesting toys, but I have some real objectives too, which mostly have to do with erasing the difference between moving and not moving. None of it is there just to be nifty.

I want to be able to do R&D work, writing, consulting without having to stop and set up an entire lifestyle someplace. Now, what that means in essence is that I want maximum autonomy in terms of computing power, electrical power generation, and communications capability and maintainability anywhere in the world. Power, for example, has to be autonomous. I have 82 watts of solar panels, regenerative braking, the ability to charge from any publicly available grid, or from somebody's car. All of those things are

integrated into a power management system with distributed batteries and redundant systems and so on, so I have a good chance of always having power.

Computing power is the most obvious component. The high-level graphic interface is a Mac portable. The screen is mounted on the console on the front of the bike, and there's a cursor-positioning device on the helmet so I can move the mouse around while I'm traveling.

Hypertalk, running under Multifinder on the Mac, is sort of the control supervisor for the entire bike. The graphic user interface sits on top of a suite of embedded micros which handle network management, configuration of audio devices, data collection, etc. The Mac interface presents me with pretty pictures of all this stuff. The Mac also runs an X window server to the SPARCstation. Back behind the seat there is a Sun SPARCstation, an IPC, which I use as a mapping work station and a communications node, so I have a 24-hour-a-day Internet presence via a Cellblazer modem and the Qualcomm OmniTRACS satellite terminal mounted on the trailer.

I can use all this while mobile. Underneath the Mac screen there is also a VGA display in a DOS environment. I'm using that for

CAD (both OrCAD and AUTOCAD), a lot of my mapping stuff, and satellite tracking for the ham radio satellites, and my big database, and so on. I don't like to use that screen while I'm mobile because it washes out in the sun, so I use another DOS machine, a tiny one, right behind the seat, that runs a heads-up display from Reflection Technologies that's mounted on my helmet.

M2: Is that a Private Eye?

SR: Yeah. So what that means is that, while mobile, I've still got

Cellular bridge which lets me connect to relatively traditional servers like calling up networks. GENIE, for example, is one of my home networks. I'm on it two or three times a day to communicate with my base offices. I now have this Cellblazer which will run at 10 kilobytes per second with a nifty protocol called NetBlazer. It can essentially put me on the Internet 24-hours a day but only turn on the cellular link when I have to move data.

I'm also a very active ham radio operator. I can be out in



Robert Walman

access to DOS, Mac and SPARC environments, each of which has a large hard disk, and each of which is networked via cellular phone modems and packet radio to the rest of the world.

In terms of communications, the main business conduit is a cellular phone with 2 modems and a FAX. One is a Spectrum

the middle of Asia and still send and receive E-mail. I have access to the new Microsats which are ham radio satellites, and to HF, VHF, UHF multimode. I can do this all while mobile, with my flip-up antennas. And there's a small amateur television station, too, that I use with my little Sony CCD camera.

continued on next page column two

Nomadness Motivations

by Steve Roberts

• **Lifestyle Prototype** Future society will be virtually paperless, energy-efficient, dependent upon wide-bandwidth networking, and generally cognizant of global perspective through routine communication across decreasingly relevant borders. It is not too early to prepare for this: we need the ideas, the tools, and an awareness of the problems that accompany fundamental shifts in the meaning and delivery of information. The new bike, and the lifestyle that results, is a case study and feasibility test for much of this. I have already seen the effects of my earlier travels, especially back in 1983-4 when laptops, online services, solar panels, and recumbents were all so strange that people were startled into understanding. During the next trip, I will be appearing regularly at schools to help plant the seeds early (while reminding students that the obvious choices are not the only ones).

• **Consulting Business** Industry is requiring increasing specialization of its workers, due to the overwhelming amount of expert knowledge associated with every technology. This yields positive results but at a severe cost — specialists inevitably lose sight of the big picture. There is thus a growing market for people who travel continuously among specialists, cross-fertilizing at every stop. No trade journal or annual conference can accomplish as much as a renegade cadre of curious technoid generalists on the loose in industry. The companies that recognize their own narrow focus and take steps to keep it in context gain a competitive edge, and my nomadic

lifestyle and extensive support technology keep me in touch with a very wide range of pursuits... and marketable.

• **Product Potential** The new system addresses a number of basic needs: autonomous power generation, global communication, soft-architecture realtime control, nomadic publishing, security... and more. These needs are by no means unique to me, and casual market research suggests that there could be a wealth of spinoffs with the right strategic partner. Sort of a mini-NASA...

• **Writing and Publishing** People are endlessly fascinated by life on the edge, the adventures of travelers, and peeks through curtains into other lives. Travel and writing are thus inextricably linked, and by carrying the most sophisticated tools available for biketop publishing, communication, and information-gathering, I minimize the number of excuses for not being productive while raising reader curiosity in the process. For an author, this whole gambit is a gold mine: endless story material, superb tools, and easy marketing based on a recognizable image.

• **Adventure** This goes without saying. High-tech nomadness is fun, and my travel style insures interesting contacts in strange places. Routine life is impossible on a computerized recumbent with solar panels and a thicket of antennas... and there's a LOT of world to explore out there. Having had a taste of it, how could I spend my life in one place?

• **Security** I once wrote that "the greatest risk of all is taking no risk." While that may be true, it does not mean that I relish the idea of being robbed, run over, or

continued on next page column one

left to die of thirst with a broken axle in the desert. The new bike is designed with enough different kinds of communication gear to virtually insure that I can get a message out if necessary. Usually help is only a pushbutton away, via ham repeater or cellular phone—in more remote areas, a few moments' preparation puts me on the HF bands or into a communication satellite.

• **Community** This may sound odd at first, given the classic "loneliness of the long-distance traveler." But nomadness is the most social lifestyle imaginable for two reasons: global networking and the timeless energy of beginnings. The traditional concept of stability, normally restricted to neighbors, associates, and the familiar things that define "home," is now distributed around the world and constantly refreshed by encounters on the road. Home is everywhere, and I am constantly amazed by the intelligence and imagination lurking in the most unlikely places. (The mainstream high-tech world is provincial and technocentric... seldom recognizing that wizardry can thrive in backwaters not steeped in the vapors of silicon. From unexpected quarters come new ideas.)

• **Technical challenge** Finally, one of the most deeply alluring parts of this whole affair is the project itself. The engineering aspects of this, ranging from sophisticated CAD tools to fancy new adhesives, represent a seductive and multifaceted learning curve coupled with the pure joy of creating something exciting. And one of the best parts is that the media visibility keeps attracting new sponsors, allowing me to select the very best technology that industry has to offer without being stopped in my tracks by something so mundane as cost. How could a dedicated hacker/tinkerer ever abandon such a project? **M2**

M2: Wait, you're now a TV station too? [laughs]

SR: I'm carrying a video camera because I'm doing a bi-weekly feed to Silicon Valley Report which is a cable show here. Every other week, I'll feed a story back from someplace, usually about some interesting technology I've stumbled on. Having all that capability on the bike means that it's simply a matter of adding one circuit board to have an amateur television station. So, it'll have about a 40-50 mile range, something like that. Then, of course, the bike itself is an 8-foot recumbent with a four-foot trailer. The whole thing weighs about 350 pounds.

M2: 350 pounds! And that's pedalable?

SR: Yeah, it's got 54 speeds, which helps, and the granny gear

is eight inches which is really, really low.

M2: Have you had people try to steal it?

SR: No, never. I've had drunks sit on it, and people mess with things. That doesn't mean I'm blasé about it though. When you wander around on a million dollar bicycle you get really paranoid. There's a very robust security system with 6 levels of sensors.

It knows if anybody is within 15 feet, if it's being touched, if any access panels are opened, if there is a body on the seat, if the wheels or steering are turning, or if its satellite navigation coordinates are changing. It uses its speech synthesizer to talk to whomever's there, give alerts and so on. If it's being moved without me it'll start beaconing its latitude and longitude on all available packet radio

frequencies—and it dials 911 on the cellular phone and reports its own theft to the police.

M2: So the current bike isn't the Winnebiko III, it's called the Behemoth, right?

SR: Just BEHEMOTH: Big, Electronic, Human, Energized Machine, Only Too Heavy.

M2: How is the bike being paid for? Is it subsidized through sponsorship? Through hardware donations?

SR: Basically, about a quarter of the cost is actual components. And most of that is sponsored—I'd say 90%.

M2: In terms of sponsorship, what do corporations get out of their association with you? Do they just get a kick out of it, or do they get real research back?

SR: There are lots of times when I've provided hard engineering

On The Road Scenario

By Steve Roberts

Hot sweat steams inside layers of polypropylene. The road, winding and narrow, is a relentless 9% grade stretching before you into the clouds. An occasional logging truck splashes past with a roar and the smell of chopped fir. Sounds: rain ticking ripstop, your own rhythmic panting, the soft clatter of chain and dérailleur, an occasional muted birdsong, your mate's voice breathless in your ear via 2-meter ham radio, the soft whir of a pump pushing coolant through the helmet heat exchanger, the bike's speech synthesizer piping up to announce system events or incoming calls. The heads-up display shows a shimmering red scrolling map of Shasta County, your own location a centered blinking arrow derived from the GPS satnav system, tonight's campsite a slowly nearing

tent icon. You zoom out, and 32 miles ahead is a house; you double-click it with the thumb mouse and a window opens, showing the database record of

an online friend you've never met. Too far... maybe tomorrow night.

The console in front of you carries both Mac and DOS environments, with the former able to open under Multifinder an X session to the SPARCstation (file server and CD-ROM mapping workstation) behind the seat. The main display is a HyperCard graphic user interface to the FORTH embedded control systems, and you see at a glance that the battery is at 68% with 23.4 hours to discharge predicted at the present sliding-average rate... no solar power today. You touch a thumb button to engage the head mouse, and with a subtle nod click on the ham radio icon. A virtual front panel pops up, looking remarkably like the Icom HF transceiver back in the trailer—with a click of another button it comes to life, while below your awareness a trio of FORTH processors in the bike's major nodes set bits in their audio crosspoint switch matrices to establish a bidirectional audio link between radio and helmet. Your Ohio friend is still chatting away on 20 meters... you break in at a polite moment and let him know you'll be on from the campground after dinner: will he have time to check some documentation for you? There's a databook you never got around to adding to the bike's microfiche library, and as Murphy would have it, that's the one you need.

That issue shelved, you open a text window and add a few thoughts to your article about this remarkable mountain range, typing flute-like on the binary handlebar keyboard with barely perceptible movements of your fingertips. You are actually keying in macros, which are interpreted by PRD+ running in the background on the T1000 that occupies the lower third of the console. "otr," you key, and "on the road" appears on the

feedback to sponsors which leads to design revisions. I find lots of bugs—I'm using their equipment in a very high stress environment. And, there's the publicity angle. This thing generates quite a bit of ink and I do lots of public appearances. Companies thrive on that.

M2: What sort of response do you get from people? Don't people just think you're nuts?

SR: Occasionally! [laughs] For the most part, it seems to trigger a kind of recognition of personal dreams. Basically, all I'm doing here is chasing a dream, living my passions. I believe that passion is one of the strongest motivators for doing anything, certainly for learning. A lot of the reactions I get from people are, "Hey, you know something I've always wanted to do..." Of

course, my response is, well, go for it!

M2: What is your formal training? Are you an engineer?

SR: I'm an "engineer." I had a very brief flirtation with engineering school, but it felt like going to an art school and having to paint by numbers. They had a lot of good tools there, but I was afraid that I'd pick up so many bad habits that I'd never be a good designer. So, I decided to go off and be self-taught. Again passion—passion and curiosity are much better motivators than fear. Knowing there was a test Friday never motivated me to dive into the books, but wanting to build a nifty widget would keep me up all night.

M2: Have you traveled extensively with anybody else besides Maggie?

SR: Not fulltime. I do welcome people. In fact, I'm looking for more company.

M2: Let's talk about that. You had an article in a recent issue of your *High-Tech Nomadness* proposing a nomadic community. Did anyone respond?

SR: Nobody said, "Yes, I want to trash my lifestyle and come live on the road with you," but lots of people expressed strong interest. I would like to have a more stable mobile community where people are networked together with ham radio and packet.

M2: When you're on the road do you do other than freelance writing for income?

SR: Well, my magazine *High-Tech Nomadness* is the thing I care most about right now.

M2: When I first saw it, I was skeptical that it could sustain

my interest, being basically about you and your bike, but now I anxiously await each issue. What's it mean to be a high-tech nomad?

SR: Well, the thing about all these communications tools is that they erase boundaries, it doesn't really matter where I am. I have very little respect for national borders or other such political artifacts. *I live in dataspace*—dataspace is my real home.

The beauty is, I have these growing circles of friends who are just out there somewhere. I have no idea what they look like or anything else, but we all have this brain-to-brain contact. It's a meta-community which is very alive and energetic and complex. **M2**

screen; continuing in this fashion, you appear to the system as a 100+ word-per-minute typist, blazing away through a FORTH-controlled matrix that masquerades as a standard Macintosh keyboard.

A synthesized voice in your ear: "Satellite pass complete; you have mail." Speaking distinctly, you say "read it" into the boom microphone; the Covox interprets the command and the Audapter immediately reads you a friendly note from a woman in Australia, ported from Internet via a gateway in Silicon Valley.

Another logging truck, too close! You touch a red thumb button and the air horns blast — the driver swerves and toots back. Grrrr. The road levels, the rain finally stops, and it's a downhill coast all the way to camp. Occasionally you squeeze the brakes, but never quite enough to engage the hydraulics—the bicycle control processor senses the pressure rise in the system and directs the regenerative braking controller to draw a proportional amount of power from the variable-reluctance front wheel hub. This satisfies your braking requests, and dumps a couple hundred watts into the power bus. Today it recharges the batteries... on a sunny day, the excess power would be passed to the solid-state refrigerator that cools the thermal mass of drinking water... providing a heat sink for your helmet cooler. It feels good to conserve scarce resources.

An hour later you are camping, smells from the stove intoxicating, the sweet buzz of healthy tired muscles retreating in the glow of firelight, Grand Marnier, and a smooth CD on the stereo. In its own tent, the bike waits, security system alert and watching for movement. You can't relax yet, though—you have to consult an OrCAD file prior to the sked with the ham



in Ohio... you climb into your tent, and under candlelight open an aluminum suitcase, flip up a small antenna, touch a key to awaken the laptop, and sign on to the bike via UHF business band packet data-comm. A few quick commands, and you hear the Ampro PC's hard drive quietly spin up off in the trees—then the file enters your local system RAMdisk in short 4800-baud bursts. Ain't technology wonderful? While munching linguini with clam sauce, you peruse the schematic and make a few notes.

Once you get the pinout data from Ohio and finish the changes to the CAD file, it's time to ship it to your partner on the design project. The final version will go out machine readable direct to the printed-circuit fab house, of course, but this one is for comments... you extend the fiberglass BYP (big yellow pole) mounted on the back of the trailer, aim a 6-element 900 mHz yagi antenna in the general direction of Redding, and via the laptop RF link, direct the system to check for clear cellular phone service. That established, you pass a print capture of the schematic file to the fax software and let the bike handle the details of sending it to a fax machine in Boston.

While the cellular antenna is set up, you log in to your base SPARC to send a long-overdue column to the alias and browse a couple of newsgroups, then kick back with another little nip of Grand Marnier for a relaxed evening of staring into the fire and chatting with your sweetie. Ah, the outdoor life...

And you're still wondering why I do this? **M2**

(The above originally appeared in *Marlow Magazine*)

HDTV Wars

The Second Round Begins



"Eggy"

by HDTV Posterboy Yoichiro Kawaguchi, Japan's premiere computer animator and an Associate Professor at Nippon Electronics College. Look for an interview with Kawaguchi in our next issue.

Stephen Beck

The threat and promise of High Definition Television has been rumoured for over a decade. Travellers returning from Japan carried back wonder tales of the new technology. Techno-weenies grouched over the entrenched interests that kept this new technology from us.

Well, good news! Our apparently laggard industry may actually be able to leapfrog over the Japanese. A trio of American companies—Zenith Electronics, AT&T Bell Laboratories and AT&T Microelectronics—recently announced development of an all digital HDTV system. (For brevity's sake I will refer to this trio as "ZAT.")

The ZAT all-digital system is vastly superior to Japan's highly touted Hi-Vision HDTV system, which is based on older analog technologies. Some experts think that Japan is now stuck with Hi-Vision, an outdated, 20-year old hybrid technology requiring expensive satellite transmission and dish antennas at each home receiver.

Takashi Fujio, former director of HDTV research at NHK (Japan Broadcasting Corp.) and now director of the HDTV Development Center at Matsushita, recently conceded that, "Eventually, Hi-Vision will be replaced by an all-digital system." Digital transmission of HDTV is far less susceptible to picture and sound distortion, breakup, and other interference than analog transmission.

The ZAT development is the latest of several entries from American companies which have been

submitted to the FCC for a final review and decision. The FCC will determine which HDTV technology will be given the government stamp of approval, and thus become a standard.

COMPATIBILITY AS A GOD

While an all digital HDTV system will result in superior picture reception, the transmission will not be compatible with the existing analog NTSC television standard. The ability of existing TV receivers to display some version of an

HDTV transmission will not exist.

But should a 21st century format like HDTV be hobbled by having to maintain compatibility with an existing television standard over half a century old? Should we legislate compatibility?

During the FCC television standard hearings in the late 1940's and early 1950's, it was rumored that political pressure was applied on the NTSC (National Television Standards Committee) by the RCA Corporation Chairman, David Sarnoff. A former Army general, Sarnoff persuaded contacts in the Pentagon and the White House to support the RCA-based technology as the new color TV standard over that of rival CBS.

CBS had developed a field sequential color TV system that produced color pictures of much higher resolution than the competing RCA interlaced color system did. (Color TV pictures transmitted from the Moon landings and from satellites use the better field sequential system.) However, the CBS system was not compatible with the black & white TVs which were becoming popular in the post-war American 50's. Had the CBS system been adopted, we would all have enjoyed better color for the past thirty-five years.

When the currently used NTSC interlaced color TV standard was introduced in 1953, the FCC required that the new color transmission system still produce a clear black & white picture on existing TV receivers. The decision to require compatibility between color and black & white actually resulted in severe compromises in the image quality that could be displayed. Color picture information had to be squeezed into spaces in the spectrum of existing black & white signals by using a frequency interleaving technique. If a similar downward compatibility for HDTV is mandated, the results are sure to disappoint. This would be an inauspicious beginning for true HDTV.

OTHER OPTIONS

Currently several "enhanced definition" or "improved resolution" NTSC-compatible TV systems are being tested on cable and UHF channels in the US and Japan. Known variously as EDTV or IDTV, these systems manage to squeeze some additional picture quality from existing TV systems by using a variety of signal processing techniques such as adaptive filtering, advanced encoder circuits, and time domain compression in transmission. But none offers the *true* HDTV image quality.

Likewise, other HDTV formats have been proposed by RCA, MIT, General Instruments, and other US Corporations. Some involve use of two TV channels, one to broadcast the normal picture and the second a high definition component. Others involved squeezing some additional TV lines into gaps in the existing signal spectrum. This sort of ingenuity will help bridge the gap until the transition to true HDTV can be made.

THE ZAT D-HDTV SYSTEM

So, why is the telephone company so interested in television?

Seemingly an odd combo, the answer is apparent when you recall that the phone company's major R&D push for the past decade has been optical fiber. Fiber optics is the revolution that will soon connect all our homes. With optoelectronic telephone lines, the phone company will be able to deliver between five hundred megabits to over two gigabits per second of digital data flow directly to your home. An information freeway with twenty lanes and no speed limit.

This is enough information bandwidth to provide many simultaneous digital HDTV channels directly to you. Imagine, several first run feature films available to your home in HDTV with Dolby Surround Sound, every night! VR games, libraries, maga-

zines—all in high resolution color and with superb sound! Enough bandwidth to support your wildest fantasies in synaesthetic sensurround.

Naturally the telephone company wants to become the HBO of Fiber TV by the next century. And movies delivered in HDTV to your home on a pay-per-view or subscription basis promise hundreds of millions of dollars of cash sales each month to the program provider—AT&T!

The phone company no longer wants to be just a lowly messengerboy for someone else's information. They want to sell you information too. At the moment they are legally prevented from doing so by federal and state telecommunications regulations. But that can change and will change. Only the telephone companies possess the resources to implement the new fiber optic/optoelectronic information distribution system by the start of the next century. And the Zenith/AT&T all-digital HDTV system is ideally suited to distribution by fiberoptic cable.

GETTING WIRED

AT&T and the local phone companies have already fiber-wired the entire United States telephone system down to the level of the local exchange switch. This switch is the one that connects to individual homes and offices by copper wire. All that remains to complete the fiberization of America's telecommunication system is to replace the copper wire from each local exchange switch to the individual subscriber's homes with fiber.

Yet getting the fiber to each home is a task estimated to be one thousand times more expensive than all the fiber wiring required to link all the exchanges in the country to date—a figure estimated to be \$2 billion. After all, it only cost about \$75 million to run the Trans Pacific Undersea Fiber Cables in

TELEWORKERS: THE NEXT REVOLUTION?

For about \$300 billion, universal fiber optics would allow for shifting 10 to 20% of transportation to telecommunications. This would save \$23 billion per year, including 3.5 billion gallons of gasoline, 1.8 million tons of pollutants, 4700 fatalities and 300,000 injuries, says a new Arthur D. Little study.

But we don't need to wait for fiber for these benefits, says Rich Thoma, Executive Director of Telecommuting Solutions for America. "A second generation of telecommuters are about to discover they can tap into existing high-speed (56 kbps or 64 kbps) 'data over voice' services available via most home 'twisted pair' phone lines. Using multiple ordinary phone lines to extend this bandwidth, these new 'teleworkers' will be able to access central databases and each other, using high-quality graphics, multimedia documents, and motion video, as if they were all on a local area network."

This could trigger a mass exodus from today's energy-wasting centralized offices to convenient home and local offices. But the telcos can't seem to market these existing services, so look for competing services to move in, including two-way direct-to-home satellites, cellular, and cable TV. In the meantime, courtesy of Sprint, TSA is "linking the world's top futurists via telephone lines running at 56 kbps and above to allow them to directly experience high-speed data exchange and remote groupware." Interested futurists can reach Thoma at MCI Mail #435-7393.

Wes Thomas

1987 and 1988. But it could cost between \$75 billion and \$2 trillion to get fiber wired to 90% of American home and office subscribers.

MONDO 2000 recently toured one of AT&T's large national switching centers in California. The demonstrator showed how a telephone call from Los Angeles to San Francisco was actually sent via Dallas, New Orleans, Detroit, and Salt Lake City on the fiber. He stated that the national fiberoptic capacity is so enormous that it doesn't matter how far the signal has to travel to reach the destination. What counts is only how much system bandwidth it consumes.

University of California Berkeley recently hosted a presentation on the emerging technology. Dr. C. K. N. Patel, the Executive Director of AT&T Bell Laboratories, heralded optoelectronics as a key way to recoup our tech ascendancy from Japan.

Optoelectronics combines light and electronics into micro-miniature devices that operate extremely fast while using very little power. Using light from a laser diode, and with fiberoptic techniques, AT&T scientists have already developed light amplifiers, light switches that operate in the pico second range, and light logic gates used to build optical computers. AT&T is determined to be the leader in optoelectronics in the 21st century, and clearly it's a key strategic playing piece for them.

What are fiber forecasters predicting? By the year 2000, many urban centers in the largest two hundred American cities will have fiber going into high density residential and commercial space first, with perhaps 20-40% population penetration representing fifty to one hundred million persons. This is a very significant plateau.

WHERE DOES THIS LEAVE JAPAN?

It is not clear whether establishing a HDTV broadcast signal standard will necessarily give one of the players a winning hand. After all, Japan's Hi-Vision HDTV system was intended to use the MUSE Technology (Multiple Sub-Nyquist Encoding) and direct broadcast HDTV from satellites to home dishes. This bypasses the need for a middleman carrier like cable TV or the telephone company's fiber TV. But MUSE is essentially an analog transmission technique—antiquated and limited.

If the FCC adopts the ZAT digital HDTV transmission standard, then Hi-Vision and MUSE will probably fade away. You can expect to see an announcement by Japan soon thereafter of Hi-Vision Digital (HVD-TV). They will simply adapt the transmission portion of Hi-Vision to something equivalent to the ZAT standard.

However, Japan still has other key playing pieces on the HDTV game table. The most important are:

- (1) The ability to manufacture the large HDTV color TV picture tubes. HDTV picture tubes are formed in a 16:9 wide aspect ratio shaped like the movie screen you see in theaters. Any HDTV set will have one of these. They are impressive.
- (2) Having a virtual monopoly on the production of vital multi-megabyte RAM chips used in large quantities in each HDTV display set. HDTV uses heavy duty VDSP (Video Digital Signal Processing) in the set to perform adaptive image processing functions. As much as fifty megabytes of video RAM might be required in each HDTV set.
- (3) Leading in the development of an HDTV VCR using VHS sized cassettes. At the 1989 SMPTE Technical

Conference in New York, NHK of Japan presented a description of a 1/2" tape Hi-Vision VCR using TCI (Time Compression Integration) techniques. It included four CD quality audio tracks. (4) Ownership of American entertainment software producers like MCA and CBS records.

PASS THE POPCORN

The first penetration of HDTV into homes will probably be as home movie theaters offering significantly better picture and sound quality. HDTV monitors and HDTV VCRs are all that are needed to accomplish this. No arbitrary transmission or distribution formats, no government-endorsed standards, because the HDTV connection is made only in the viewer's home.

HDTV home systems will emerge one component at a time. They will be built up much like the early home stereo system. First you will purchase the HDTV video monitor and a HDTV VCR to view movie programs.

Then later, once some transmission standards emerge, you will purchase an HDTV tuner, much like you have an AM-FM tuner as part of your stereo. The HDTV tuner can adapt to or be programmed to several HDTV transmission formats, as well as for older style TV. It'll be just like AM and FM radio—one ordinary grade TV and one higher quality TV.

Later still there will be HDTV tuner units that interface to Virtual Reality Channels for interactive games and computer graphics. With HDTV everyone will have a megapixel computer display right in their home delivering a twenty-four bit color image at 1600x1000 pixel resolution.

First run feature movies will be available on HDTV cassettes at the same time the movie is first shown in theaters. If you are one

of the first to purchase a 36" HDTV monitor and HDTV VCR for \$9995 at Macy's, you too can have early access!

Since the initial audience for this pricey HDTV system will be limited, there will be little threat to conventional theaters. Theatrical film exhibitors will holler and scream, but they will be unable to prevent HDTV home theaters from emerging in the end. (SONY will doubtless be selling you the hardware and the software, and prices will drop to PC levels.) Theater operators may decide to not exhibit such movies, to blacklist them, and discomfit the Japanese-owned movie companies trying to get both theatrical and VCR movies released. This could set the HDTV home theaters back a few years.

Once AT&T enters the movie distribution business via fiber TV with digital HDTV, there will surely be battles over access to movie software. SONY could decide not to use AT&T for distribution of its movies, preferring that you buy them on Hi-Vision Digital VCR cassettes.

It's unlikely that the dust will settle soon on the HDTV horizon—not with over a dozen HDTV formats proposed by American, European, Russian, and Japanese developers. Besides, what's there to be gained by seeing Dan Rather and the CBS Evening News, or sitcoms like *Roseanne* appear in High Definition?

When TV was first being sold to the American public almost fifty years ago, corporate broadcasters testified at congressional hearings about the wonderful future of *Kultur* on TV. We were promised symphonies, concerts, sporting events, education, ballets, and operas.

But as they say in opera, "It ain't over 'til the fat lady sings," though it could be a while before you see and hear her aria delivered via High Definition Television. **ME**

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Fringe Science

**Must Be Jelly
'Cause Jam
Don't Shake
Like That:**

A Quantum Sandwich



Sylvia Duran-Sharnoff

Nick Herbert

In his existential bible, *Being and Nothingness*, Sartre proposed a so-called psychoanalysis of matter: the study of innate subjective responses to physical objects. Sartre's first application of this new science was to explain why most human beings find slimy things repulsive. Slime is disgusting, Sartre opines, because it threatens his control of matter. He picks up a solid and lets go when he pleases. But slime is not a solid: when he opens his hand, the slime sticks and will not let go. "It is a soft and yielding action," he complains, "a moist and feminine sucking. I am no longer the master." The ultimate horror of the slimy for Sartre is the experience of sticky, sugary death: the image of a wasp drowning in the jam jar. Here we have interlarded our quantum sandwich with Gallic meditations on the nature of slime.

In the very apprehension of slime there is a gluey fascination.
—Jean-Paul Sartre

"Hey, jam's a treat, not a threat. Loosen up, Jean-Paul," says my friend Suzi, who actually loves slime. Suzi belongs to a secret society of Berkeley mucophiles for whom slime seems to be a central politico-religious metaphor. Suzi believes that mucophobia and lack of social cohesion go hand in hand. She sees the Sartre study as an eloquent mucophobe manifesto by a leading

literary figure. What sort of reputation, she wondered, did slime enjoy in the scientific community?

"Well," I say, taking a ball of Silly Putty out of my desk, "I'm probably a closet mucophile. Did you know that this stuff was invented by a GE engineer who spent his off-hours trying to build a radio that would communicate with the dead? And that, only a hundred years ago, physicists believed that the entire universe was filled with a Silly-Putty-like substance called the ether?"

I told Suzi that substances like Silly Putty are called *thixotropic*—they behave either like a solid or like a liquid depending on how fast you try to deform them. The Victorian physicist's ether had to be a solid for the rapid motions of things such as light, but, on the other hand, the ether had to act like a liquid to let the slowly moving planets move through without friction. Einstein demolished the ether with his theory of relativity, but physicists are continually trying to revive the notion of an omnipresent plenum in one form or another, such as the quantum vacuum or the Dirac sea.

... slime manifests to us a being which... on all sides escapes yet on which one can float... the slimy reveals itself as essentially ambiguous because its fluidity exists in slow motion...

Most solids will behave like liquids if you wait long enough. "The mountains flow before the Lord," said the Prophet Deborah. In her honor, the ratio between a substance's intrinsic "relaxation time" and the experimental observation time is called the *Deborah number*. If the Deborah number is greater than one, the substance behaves like a solid; if less than one, it looks like a liquid. Silly Putty's relaxation time is a second or so; the Earth's crust behaves like Silly Putty whose relaxation time is on the order of millions of years. On that time scale, mountains flow like soft ice cream.

...its mode of being is neither the reassuring inertia of the solid nor a dynamism like that in water... to touch the slimy is to risk being dissolved in sliminess...

"Flowing, mmm," Suzi murmured. "There is so much that is slime-like: shampoo, lime Jell-O, tapioca, slippery sexual secretions. All the glues and adhesives that stick our world together. And lubricants, all those lovely goos and greases. Did you know that there's a powder (polyethylene oxide) that you can add to water—just a few parts per million—that turns it into a slick slime? Firemen use it to make water flow faster through their hoses. Polyethylene oxide's even been used as an ingredient in 'Slippery Stuff,' a synthetic sexual lubricant."

The disgust which sliminess inspires can be explained only by the combination of its physical quality with certain moral qualities. Even very young children show evidence of repulsion in the presence of something slimy, as if the moral qualities of slime were part of their original psychic makeup... It is horrible for a consciousness to become slimy...

Suzi's enthusiasm for mucus prompted me to tell her about University of British Columbia researcher Mark Denny's work on the role slime plays in the motion of banana slugs. Slug slime possesses a kind of reverse

thixotropy called *shear thinning*. It acts as a solid for slow motions, but turns into a liquid for fast motions. The slow-moving snail can anchor itself to a rock and exert motive forces through its slime as though it were a solid, but parts of its body move fast enough that locally the slime turns to liquid. Slug slime as a solid gives the animal traction; slug slime as a liquid allows it to release part of its body to take a step. The banana slug ratchets its way along the ground, taking advantage of the convenient solid-liquid ambiguity of its slimy coat.

"Speaking of slime-assisted transportation," I add, "there are some British scientists (F.A. Glover and G.W. Scott Blair) studying cyclic changes in cervical mucus. They have evidence that this mucus, acting thixotropically in the manner of slug slime, acts as a barrier for much of the month, but maximizes the swimming speed of sperm at the time of ovulation. The variable viscosity of the magical vaginal gel actually helps more babies get born."

Slime is like a liquid seen in a nightmare, where all its properties are animated by a sort of life and turn back against me...

"The ultimate biological slime has to be the protoplasm inside every one of our cells," interjected Suzi. "Can you imagine what it must feel like to be an amoeba, moving about by consciously liquifying and solidifying different parts of your body, inventing and extending new pseudopods, opening and closing sticky new orifices at will? What a trippy animal, the amoeba!"

...it draws me, it sucks at me... it responds with its very being, with all

its matter... the slimy appears as the outline of a fusion of the world with myself...

"And some mystical experiences might even be triggered," she added, "by the properties of animal protoplasm. One of the current theories of the action of general anesthetics (such as the nitrous oxide gas that nudged William James into altered states) is that these substances alter the flow properties of protoplasm in nerve cells."

"Muco-mysticism, eh?" I volleyed back. "Some physicists have been waxing mystical these days about something called Bell's theorem. It's a proof cooked up by an Irish physicist in the 60's about quantum particles that says that once any two systems have interacted, they continue to influence each other via an invisible, never-fading, faster-than-light connection."

"This Bell connection reminds me of the technical definition of 'tack'—a kind of pressure-sensitive adhesiveness exhibited by inks and glues: *Tack is the resistance to separation following momentary contact*. Bell's theorem seems to say that we live in a totally tacky universe. Every inanimate object wants to stick itself to every other object it meets with a kind of self-secreted invisible quantum glue."

...these long, soft strings of substance which fall from me to the slimy body...

"I love it," cried Suzi. "An invisible quantum glue, sticking together everything that has ever touched! So physicists are swimming again in a sea of goo, hmmm? I know: let's call it Bell gel." **ME**

Durk & Sandy:

Read This or Die

*How to keep
yourself and your loved ones from combining
fatally with oxygen*

Two of you who are impatiently browsing this intro are going to drop dead this week. Too busy to read it, eh? Heh. With a couple of antioxidants you might have made it through the millennium to die of something more interesting. You, like most of us, will die from what are called, without irony, natural causes. The blood vessels naturally bloom microclots that organize into sludge. Your fouled conduits naturally blossom larger clots to strangle your heart or detonate your brain. Yours, maybe, but not mine. I have finally heard the lyrics, now that Durk, Sandy, and 22,000 random double-blinded physicians are singing the chorus.

The Physician's Health Study, now in its sixth year, has announced a serendipitous discovery: 40,000 IU daily of the antioxidant pro-vitamin β -carotene reduced by half the number of "major events"—stroke, heart attack, surgery, or, of course, death—in a subgroup with cardiovascular disease. And β -carotene plus aspirin may actually—no, I won't spoil it for you. Durk and Sandy have the words.

—St. Jude

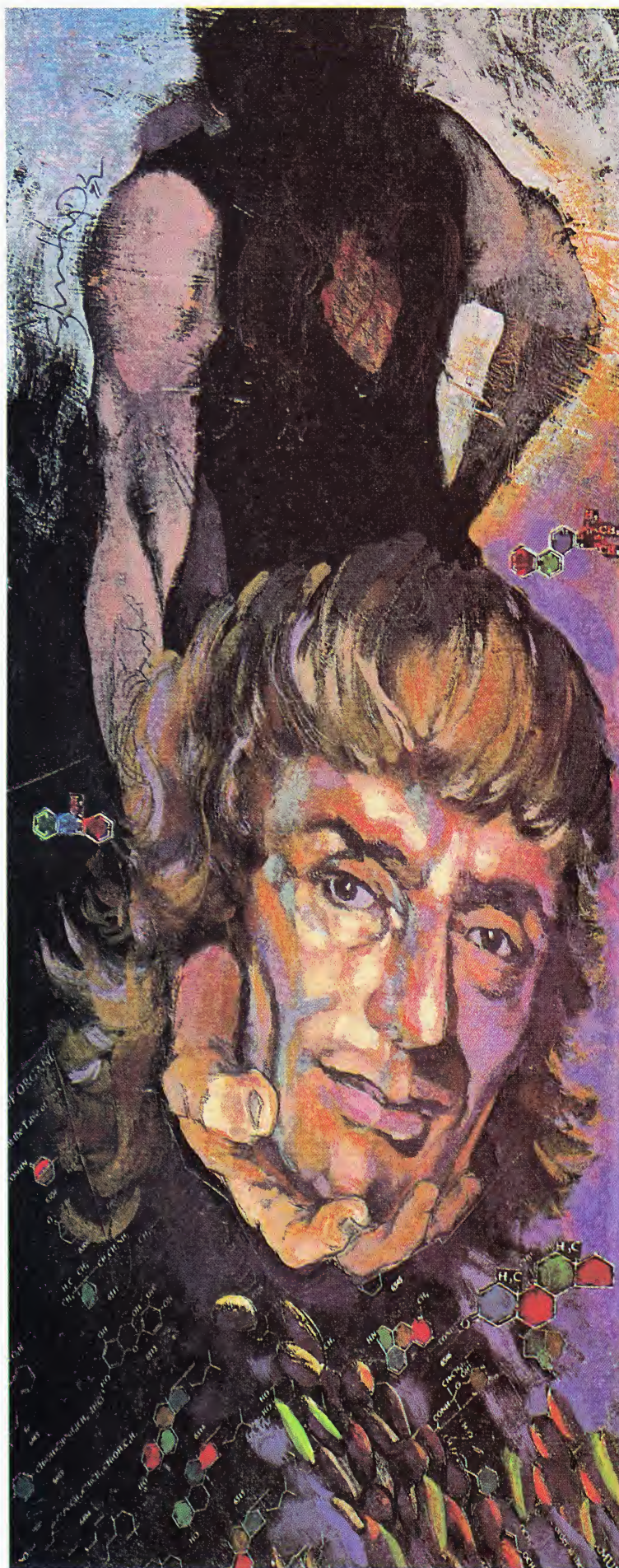


Illustration: Sebastian Hyde



Illustration: Greg Nersesian

SANDY SHAW: The news on β -carotene from that huge physician study has been a real shocker. [The Physician's Health Study of 22,000 male MDs aged 40-84, a six year double-blind study of low-dose aspirin and/or β -carotene or placebo]

DURK PEARSON: Well, it's not shocking to us, but it has been a shocker to people who think that vitamins don't do anything.

SS: You remember the announcement on low-dose aspirin from that study, showing that it reduced the incidence of first heart attacks by something like 44 percent—really substantial.

The β -carotene part of the study was intended to substantiate something that was known from animal and epidemiological studies: that β -carotene reduces the incidence of lung cancer. That part of the study isn't over yet. What they *have* found, though, is that β -carotene reduced the risk of a heart attack by 41% in a special segment of the population.

DP: Yeah, in the people with pre-existing cardiovascular disease the aspirin made a 47% reduction and the β -carotene alone...

SS: ...produced a 41% reduction in the risk of heart attacks. But the people who were on *both* the low-dose aspirin and the β -carotene *had no major cardiovascular events*.

DP: The number of heart attacks expected was I think 17 or 19, and they had *none*—it was statistically extremely significant. And what's interesting to note here is that β -carotene is a very good antioxidant at a low partial pressure of oxygen—that is to say, in areas that are poorly oxygenated, which is exactly what you have inside of an atherosclerotic plaque.

MONDO 2000: According to the Johns Hopkins Medical Letter report, β -carotene's antioxidant effect may even *prevent the formation of plaques*.

SS: Vitamin E, on the other hand, is a particularly good antioxidant under conditions of *high* oxygen pressure, such as exist in the lung.

DP: β -Carotene and E have even a synergistic interaction in vitro, and presumably in vivo as well.

In the Physician's Study they used one aspirin every other day. Subsequent studies with humans indicate you need only half that much. We're suggesting you take a quarter aspirin with the biggest meal of the day. That will do as good a job of preventing cardiovascular disease, based on what it does to clotting function—platelet aggregation and adhesiveness—and will cut the amount of gastric bleeding by about half.

SS: They were taking 50 mg of β -carotene every other day?

DP: And that's about 80,000 units every other day. We suggest taking 40,000 IU a day with the fattiest meal of the day. That's a good time to take your quarter of an aspirin, too.

SS: In the newspaper there were quotes that give you an insight into the puritanical people in power in the U.S. One of the guys in charge of the study said he recommended that people *not* take β -carotene, *because then they might not pay attention to their diet!*

Incidentally, we've got some very interesting news about changing attitudes on nutrition and prevention. Even now there are some scientists who deny that nutrients can prevent cancer and cardiovascular disease.

DP: But the scientists working in nutrition at the USDA [Department of Agriculture] say that vitamins *can* help prevent cardiovascular disease and cancer, and *strongly* recommend that people take supplements.

SS: In fact the FDA does very little research of its own, but the USDA funds a great deal of very good nutritional research. They were the ones who did that double-blind study with 800 units of vitamin E in elderly people and discovered it improved immune function.

DP: Well, the FDA *reduced* the RDA for vitamin E, because people were not getting the RDA of vitamin E in nutritional surveys—and they said

well, there's no evidence that these people are suffering from vitamin E deficiency.

Some scientists who were actually involved in setting up the RDAs are distancing themselves rapidly from the whole Recommended Daily Allowance concept. A way of characterizing the RDA is: if you have no genetic diseases, no preexisting diseases, and are under no particular stress, by taking the RDA you probably won't develop the classical deficiency diseases. And if you end up forty years later dying of cancer or heart attack—those are not classical deficiency diseases.

SS: *The American Journal of Clinical Nutrition* has published the proceedings of a conference in London, Oct. 2-4 1989, called *Antioxidant Vitamins and β -carotene in Disease Prevention*, held under the patronage of a "Who's Who" of the most important nutrition organizations...

DP: That is, the World Health Organization, the...

SS: ...British Nutrition Foundation, the Imperial Cancer Research Fund, etc. And this details how vitamins C and E and β -carotene can prevent cancer and cardiovascular disease—and also prevent diseases of aging such as cataracts and Parkinson's disease.

M2: How do we find this?

SS: It's called the Special Supplement to Vol. 53, #1, Jan. '91. And I'm getting the address—here we go! You send \$15 if you're in the U.S. or \$18 elsewhere for a copy, postpaid, to the Am. J. Clin. Nutr., POB 64025, Baltimore MD 21202.

DP: Sandy? Why don't you read those comments at the conclusion?

SS: Dr. William Pryor, who is an expert on free radicals and their involvement in disease, quoted comments heard at the conference. He quoted Max Horwitt, one of the people who established the FDA's RDAs, as saying, "those of us who served on the Food and Nutrition Board of the National Research Council had a bias against vitamin supplements—but we are changing our view. The overall tone of this conference suggests that we have passed a watershed with regard to our

attitude toward the use of micronutrients and the antioxidant vitamins. A number of speakers suggested that it may not be many years before the concept of the RDA is broadened, with one daily intake of a nutrient being recommended to prevent known vitamin deficiency diseases, and a substantially higher value recommended to optimize the disease-preventing properties of these nutrients."

DP: One of the things you have to remember is there is very definitely a lot of politics involved here. A great many entitlement programs are keyed to the RDAs, like the school lunch programs...

SS: And hot meals for the elderly. You have to provide a certain percentage of the total RDAs in those meals.

DP: And the farm lobby many years ago got a law passed prohibiting those micronutrients being provided by supplementation. They *have* to be provided by food.

SS: So if the RDAs are raised it is going to be a very expensive proposition. There's an organization called the Committee for Responsible Nutrition now making very strong recommendations to the FDA that they *change* their position on vitamins and quit resisting the notion that vitamins can prevent disease.

DP: What they said is, if the FDA doesn't change under the new leadership of Kessler, a legislative remedy may be required.

M2: What's the name of the new head of the FDA?

SS: David Kessler.

DP: He's both an M.D. and a lawyer.

SS: He was associated with Senator Orin Hatch. Hatch has been a very strong advocate of increasing the permitted label health claims on nutrients and on food products.

DP: ...like he said that to get people to improve their diet the most powerful force—the manufacturer's advertising and promotional activity—has to get involved. And that means they have to be able to make scientific, legal, legitimate claims.

SS: The FDA has not allowed aspirin companies to advertise that aspirin

can prevent the risk of a first heart attack.

DP: After that study came out in 1988, aspirin sales went up for all of 3 months while people remembered the headlines. Then they went right back down to where they were.

SS: After all, people would anticipate that the aspirin companies would say something about it if it were true. We read recently in *Chemical Marketing Reporter* that the sales of vitamin and mineral supplements have been flat for years. Their analysis was that the people who sell these products cannot make health claims legally, and as a result people are not getting educated.

DP: Taking a quarter of an aspirin with the biggest meal of the day might be a problem for people with ulcers, but that leaves the population at risk for cardiovascular disease—which is nearly everybody—with something they can do to markedly improve their chances. When you add the β -carotene onto that, the potential reduction in cardiovascular disease can be phenomenal.

SS: Well, add vitamin E and vitamin C onto that, because both of those have been proven to reduce platelet aggregation, which is a marker for metastasis.

DP: When a cancer cell breaks loose from the primary tumor there is a growth control built into most cancer cells that says "Hey, if I'm not glued down to something, I shouldn't divide"—so eventually the thing lands on a macrophage and gets eaten: no metastasis.

And in fact it looks like the dose of aspirin useful for reducing your risk of cardiovascular disease can reduce the chances of metastasis by 20%, possibly even more.

M2: What does platelet stickiness do?

DP: Well, platelets with high adhesiveness can aggregate into micro blood clots that glue these cancer cells to the wall of an artery or vein. And in cardiovascular disease, if a large enough clot ends up in your coronary artery, you have a coronary thrombosis. If it ends up in your brain you have an occlusive stroke. Everybody's heard about people who have died after eating a big meal with a lot of fat in it.

SS: The reason is that a lot of fat in the bloodstream increases platelet aggregability and therefore for a period of time after you've eaten, there is an increased risk of having a heart attack.

DP: They did an experiment that gave people a very bizarre, worst-case breakfast: a cup of tea, a slice of toast, and 3/4 of a stick of butter. They found that the platelet adhesiveness and aggregability had dramatically increased a few hours later—to levels found in cardiovascular patients in hospitals. But give 'em a gram of Vitamin C along with that meal and there is no increase.


SS: Then they did a parallel study in cardiovascular patients: they gave them 1 gm of vitamin C every 8 hours. The platelet aggregability went down into the normal range.

DP: I'd love to see a large-scale study done where people are given say 100,000 units of β -carotene a day along with say 800 units of vitamin E a day and a gram of C 3 times a day, plus a quarter of an aspirin with the biggest meal of the day and maybe half a gram of taurine 3 times a day...

M2: Why the taurine?

SS: It's very important for the control of electrically active tissues. There was a study in *Science* several years ago which showed that a cat had developed dilated cardiomyopathy—basically congestive heart failure—due to a taurine deficiency. And now in fact the major reason for people having heart transplants is dilated cardiomyopathy. We think that it would make a lot of sense to try putting those people on taurine before they get to the point where they have to have a heart transplant.

DP: Not only does it act as an antioxidant—protecting the eye from cataracts and macular degeneration and controlling electrical excitability in things like the heart and the brain—but it lowers platelet adhesiveness as well.

SS: Yeah. Taurine is such an important nutrient we've predicted it will be the vitamin C of the 90's. 

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A

lthough the response to my article *Grow Your Own Growth Hormone* was less than deafening, I've decided to push on into the underexploited area of jiggering one's own biochemistry for personal fulfillment.

After all, what an adult might consent to do to his/her own body in the privacy of his-or-her own lab must be extrapolated to be okay—this follows in the tradition of the U.S. Constitution and its popular spin-off, the Bill of Rights.

Now that we've rationalized all this, let's get down to the malpractice of medicine. No medical person in his-or-her right mind would recommend:

St. Jude

THE COMPUTER NERD'S IMPRUDENT WEIGHT LOSS PROGRAM

It's true! You needn't budge from your computer monitor to lose fat and stabilize lean muscle mass. You are not podgy because your only exercise is self-abuse. The problem is that, because of your genes or an age-related slowdown of your autonomic nervous system, you don't burn with a hard gemlike flame—you gutter like a smudgepot. *Thermogenesis*—burning fat at rest—is the key to weight control.

Medline is rich in thermogen research results. Here are over-the-counter medicaments with which you can seize control of your pilot light. **Ephedrine** is available on the street as *cross-tops*. This is crazy. Get out of that street—buy it at your local pharmacy. It's one of the cheapest of the decongestants. If you're a naturoperv, you can use the herb **ephedra**. **Theophylline** is a bronchodilator used for asthma. Taking these with aspirin and caffeine

nearly doubles their thermogenic effect. Animals bred for obesity shed all their excess fat on these combinations, *without altering their dietary habits*. This means you can continue living on cheese curls if you want, but you'll feel better if you switch to a diet richer in antioxidants and protein.

Many weight-loss regimens are based on a pre-mixed commercial formula that provides basic nutritional requirements. This program relies on one of nature's perfect foods—the pumpkin pie.

The pumpkin is the *whip* of vegetables. High in fibre, low in calories, it is the richest natural source for beta-carotene—and for that matter, alpha- through omega-carotene. In fact, an important percentage of the *five hundred* known plant carotenoids, presumably antioxidant, appear in pumpkin. In its most convenient form—the pie—each is delivered to your gut with the fat essential for its absorption. A balanced complete protein even without its nutritionally dicey comrade, French vanilla ice cream, this staple makes the ideal breakfast, lunch, and dinner. Now let's get in there and generate some therms:

Wake up when you choose. Loll around with cryptic crosswords or comic books until guilt propels you to

Breakfast: one generous slice of pumpkin pie, one cup of coffee with sugar or milk if you like, 400 IU of vitamin E, a gram of vitamin C, 25 mg. of ephedrine, one aspirin. Now sit down at your CRT for four hours and write the language of your choice. While your breakfast comes on, watch the fish and toasters in your screen saver.

For lunch, have a piece of pumpkin pie, a cup of coffee, 400 IU of vitamin E, a gram of C, 25 mg. of ephedrine and an aspirin. Sit down for some *quality* time with your CRT. You may notice you feel chilly, you may notice you're trembling slightly—but you may notice that you have finished this week's work schedule by the time you're willing to break for

Dinner: pumpkin pie P.R.N. but *only one* cup of coffee, 50 mg. theophylline, 400 IU of vitamin E, a gram of C and an aspirin. If you're not crashing yet you may find yourself irresistibly drawn to the CRT. If your energy droops, lie down in front of the alternative CRT and watch nature programs. Engage in self-abuse.

Bedtime: bed down and read journals or Science News until your eyes cross. Do some vasopressin. Sleep.

This program is elegance itself. Not only are you guaranteed to lose weight at a steady rate, you may find yourself abruptly richer or more prestigious as your capacity for work exponentiates. As you become more attractive physically and fiscally, you must be prepared for a richer, stranger sex life involving *other* people. Science comes through again.

Alan Lewis, who sent the research papers on thermogenesis, is a freelance Medline cowboy in Ann Arbor, Michigan.

St. Jude, named for the patron saint of systems programming, New Age music, and children's aspirin, invites you to send in your own ideas for better living through biochemistry. **M2**

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Beyond Multimedia: ITV

by Mike Saenz and Michael Synergy

TEENAGE MUTANT MULTIMEDIA DESIGNERS

Multimedia is a sex sandwich of media types, a multiplexed method of communicating for people who like all umpteen courses of the information banquet served up at the same time. In digital form, this translates into computer graphics and animation, digital video and audio, programming and data, blood and thunder, chopped and molded into one big sushi roll.

Today's multimedia designer has mutated into part computer geek, part hipster.

We feel confident that the MONDO 2000 user

They're randy and ready to go beyond multimedia computing toward something geared for a much larger market. If designers are frustrated by hardware platforms and limited markets today, they'll choke on the challenge of tooling and staffing up to create products for an interactive fiber optic cablecast medium accessible all over the world.

will be quite familiar with this brand of mutant.

INTERACTIVE TELEVISION

Today's television has a lot of informational throughput but little or no interactivity beyond a remote control. Computers are deeply interactive but really have limited informational throughput.

You may have heard this before, but personal computers and television are Interactive video, aka multimedia to Silicon Valley, has been around for years. And for headed on a collision course.

as many years, people have been speaking about the inevitable game of 'chicken' the

two are playing. Computers and television are both riding the center line, prepared for

a head-on collision at 110 miles per hour. We hope they both have insurance.

You'll be able to edit your own newscast or do your own rock video programming on your favorite music station. Interactive Television will allow you to watch the World Series, run

your own instant replays, pick camera angles, zoom and frame capture, vote for the most valuable player, and read biographies of everyone on the field.

If you find televised baseball We can't stand baseball. On the other hand, it pretty mind-numbing stuff, this might make it bearable. Or maybe you'll swear off the real thing forever.

can be profitable. The best situation would be to have the TV keep track of our bets and tell us how we stand while we watch some tape.

I WANT MY ITV

The digital merging of the media is happening, and we're headed for the day when millions of users can interact with the same broadcast and tailor it to their own kinks and psyches.

But interaction isn't the be-all and end-all of future television. It has the potential, in fact, to ruin a **medium** which, at its best, is damn good.

Television must be a medium—it isn't rare, and it certainly isn't well done.

Interactivity can screw up a good story. Imagine a version of Star Wars where you can choose the ending. Luke Skywalker and his intrepid friends get toasted and the evil empire wins. You might dig this, but is this what makes an entertaining movie or a robust video game simulation?

And then there are the ethical concerns. What's going to happen to the intellectual properties and copyrights that are being licensed and bought up now for future exploitation? People are coming to blows over the colorization of movies as it is.

Are we going to see snottosed multimedia techies making an interactive version of "Citizen Kane " where Charles

Foster Kane decides not to build Xanadu and opens a bordello (or a speakeasy, or a girl's prep school) instead?

Would he name it "Rosebud"?

Orson Welles will be spinning in his grave like a high-speed lathe on an overtime shift.

INTERACTIVE COMMERCIALS

Yes, it can happen and most likely will. Imagine a "Virtual Reality" test drive embedded in

a car commercial (totally absurd but it might be wildly effective). Imagine Reverend Tilton inviting you to press your hand against the touch-sensitive screen. **Feel the healing power**

of Jesus while you transmit your Visa number. A session of future TV may be like a trip to **Or someone else's Visa number. We look upon televange-** Las Vegas Hell. You'll empty your pockets and go to bed exhausted and miserable. **lists the way some look upon plague victims. Or lepers.**

Interactive programs can be very addictive. **In this society of Signal Saturation and Media**

Manipulation, you'd think that someone would realize that perhaps we're merely creating a

better brainwashing tool. I remember the catchphrase of the old-time Chicago ward heeler:

The possibilities for subliminals are endless; they are also

"Let them have free elections, as long as I get to pick the candidates."

probably redundant. For most people, television is their blind

Remember, Chicago is the town

side, where the information meme lodges firmly and unno-

where the dead regularly vote,

ticed in the back of the brain, coloring their perceptions.

and ballot-box stuffing was good

preparation for Thanksgiving.

Multiple choice can be no choice at all. ITV can give you token control. ITV can look like a two-way street, but it might be a one-way ticket. What more powerful and insidious form of mass mind control could fall into the hands of the power elite besides a flat-out, hard-wired, electronic mindfuck? Get out your notes on that unified conspiracy theory you've been working on. Let's add an interactivity top-spin to future propaganda.

THE PROMISE OF ITV

The ultimate promise is for the medium to allow for the expression of the user's free will and

creativity. **TV promotes a passive role—we are denied the ability to manipulate the "medi-**

Thanks to Marshal McLuhan for the idea, and special

um and message" ourselves and have really only the option of being manipulated by it. **Even**

thanks to the government for the promotion of passivity.

the ability to give a vote of no confidence—letting Dan Rather know that you think he's ly-

Our favorite Dan Rather moment is when he interviewed Bush and

ing or has been lied to—would become an important first step. Destroying the common pas-

The victim—that's you and

saved the Bush campaign. Our second favorite moment is when Dan

sivity and removing the implied "consent of the victim," ITV would allow empowerment.

me. We have no control over

was getting the shit kicked out of him by two gentlemen in suits who

ITV—if it's done right—will let you massage the medium AND the message.

what we get on television.

kept asking him "What's the frequency, Kenneth?" Obviously, these

That's why we read books.

guys were way ahead of us on the interaction front.

LET'S GET REAL (OR AT LEAST REAL CLOSE)

Entertainment is a necessary force to drive such a movement. Just as it created the home

video boom, entertainment will create the market and establish the distribution channels

Distribution channels are essential. Home video was "pioneered" by which are crucial to the success of the medium. The first wave of exploiting the marriage of pornography—people didn't want to sit in dark theaters next to men in new technology with old properties, from *Casablanca* to Super Mario Brothers, might be to overcoats with handkerchiefs over their groin. The demand created by support the idea of "point of view." You will be immersed in the story, filling the Bogart or video porn started people buying video machines and opening up video Mario roles. Or fill the Bogart role as Super Mario. Whatever. The ability to vicariously enjoy the role of a "rock star" within an Interactive Rock Video could be revolutionary to rock n' roll itself (the simulated contract battles might be more fun than the

How about the obscenity trials?

backstage naughty bits).

Or the palimony cases?

There may not be a sudden revolution. Some corporations, particularly those who know

Without software, a computer is just a box which doesn't

that software sells hardware, may be the first backers for the serious players. But watch the

do much. The hardware vendors have learned that having

small developers who know that sweat equity and a personal stake in the vision can make

the hardware without the software is fatal—those that

all the difference.

didn't learn don't exist any more.

Small developers can turn out superior and innovative products in shorter time and with less money than their larger competition. This entrepreneurial spirit is what has given the U.S.

the lead in software. The loss of this spirit through the cre-

Nintendo has sold over 60 million home entertainment systems since 1987. Compare

ation of the mega-entities developing software for the current

this to Apple's installed base of 4 million Macintosh computers since 1984. Money aside,

market is why the U.S. lead in software is slipping.

Nintendo has a bigger audience and a wider influence than Apple. The Japanese are great

at optimizing hardware. They also have a proven track record of long-term investment,

product quality, and market building. But from our point of view, the Japanese can make

hardware till the rising sun supernovas. The U.S. holds nearly untouchable power in the

area of entertainment—and we should concentrate on it. Object lesson: The "Barbie Doll" school of marketing created by Mattel. Ultimately, it's where the hard dol-

Sell the doll for dirt cheap. Then sell numerous, profitably priced clothes

lars in the market are. It's like selling pizza versus pizza ovens. The Japanese firms buying

Some day soon, Sony Corporation may be the largest corporation in and accessories for the doll. The profit margins are incredible.

up American entertainment businesses understand this: movies, books and other intellectual

the world, with a motto akin to "We own EVERYTHING!" Why? Be-

property rights are the software that they need for their hardware.

cause they caught on to this fact early and have been aggressively

pursuing the goal of owning as much of the software the world has to

offer as they can.

Some U.S. computer companies have fumbled the ball. For many years now, Apple has deliberately stifled the entertainment market on the Macintosh. They offered some, but not much, support for software, **titles, tools,** or anything which would suggest their hardware was anything other than a business machine for people who are serious about business. The result was that the "computer for the rest of us," the best platform for multimedia development in wide use today, became targeted at the Fortune 500, and the corporate zombies reigned supreme.

Titles: Intellectual property which could be used as a narrative for an interactive product. Books, movies, etc. 99% of Silicon Valley is actively pursuing "title acquisition" with the last 1% creating titles. Tools: Software toolkits intended to help people create "titles." HyperCard, Director, etc.

It's not too late for Apple (and other companies) to make a course correction and throw full support into the entertainment market. **The new**

low-cost Macs and other developments are strong indications that Apple

This market is huge and stable throughout good times and bad, and is waking up and smelling the home entertainment market.

hence is the "Mecca" for a company; it is a cash cow. Even during

the Great Depression, people still made/went to see movies.

INTERACTIVE TV SERIAL KILLERS

If the focus and power of ITV is left unchecked, tomorrow's future ITV

Who will be the Goebbels of interactive media? (Goebbels designers will find themselves in the unhappy employment of raping the

was the German who borrowed his Nazi propaganda doctrine mass mind for morally bankrupt but cash-rich corporations.) It's the duty

from the American advertising industry: If you tell people of artists everywhere to get with the program and inject their values into something often enough, they eventually come to believe it.)

a powerful new medium. Otherwise, an embittered ITV designer will one

day be pointing a powerful weapon at your head, at his own head, and

begging "Stop me before I create again." **ME**

*Mike Saenz is the president of Reactor, Inc.,
a Chicago-based software company primarily
involved in creating entertainment products
for interactive media such as CD-ROM and
computer networks. Reactor can be reached
at: (312)-528-1600.*

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War

is Hell, Peace is Heck



John Boruso

And Other Lessons from the Mother of All Postwar Periods

Now that Saddam Hussein is demonized to the max and the fear of Arabs blossoms once again, a giddy euphoria spreads, flu-like, across the land. But you know what, America? I think you should call a time-out on those hoarse shouts of victory. Stop mothballing those yellow ribbons a sec and join me for a quick squint back at those elements of the Persian Gulf war that *annoyed me personally*.

Peaceniks: Talk Show America wouldn't stop griping about peaceniks. Apparently, the fear was that peaceniks would sap our ground forces' resolve: "Agh! I'm haunted by hippies! I can't pull the trigger!" Why won't Talk Show America just accept that peaceniks come in 20-year cycles, like locusts? They're a magical part of nature's rich tapestry!

Post-Post Vietnam: Experts said the Vietnam nightmare is finally behind us. It's *over*. Got it? For stray vets or peaceniks who haven't received the news, will celebrity volunteers go caroling "Voices That Care" to surly shut-ins, so they, like our ground forces, can sob in gratitude, "Chevy Chase loves me."

Retired Generals: These guys were swarming all over the airwaves with their opinions on possible military tactics. And for what? I'm as military as a fashion model, but I had our strategy sussed from the get-go: 1) Detonate high explosives among Iraqis; 2) Scrape Iraqis from the desert floor.

Ian Shoales

MONDO 2000 T-shirts

Sure, it worked like a charm. But what do the old soldiers do now? Hang out on street corners with their maps and arrows? Do we sic the "Voices That Care" singers on *them*? As the Democrats say, we're facing some *tough choices*.

Peter Arnett: Alan Simpson, the Republican senator who once told Saddam Hussein that the American media was his enemy, told America that CNN's man in Baghdad was our enemy. Huh? If you show America something it doesn't want to see, does it mean you're a traitor? By that logic, the *Bonfire of the Vanities* producers would be lined up and shot. This may in fact happen anyway, but the point is, senators shouldn't interfere with a free market economy. The media will kill their own. Remember Jimmy the Greek?

Saddam Hussein: Halfway through the air war, experts discovered that his eyes' blinks-per-minute had doubled since June. They concluded that this was a *mental stress indicator*. Oh, fiddle-dee! What about *counting blinks*? Sounds compulsive to me.

Maybe this data was vital for national security ("Update me on Saddam's BPMs, mister! I need those figures yesterday!"). Still, why give consultants the job? The homeless would monitor the tics of world leaders for minimum wage. Give them a clipboard, a stopwatch and videotapes of Gorbachev and Bush! Blink-counting could become a real job for the 90's!

The Coming Sarcasm Shortage: I wish we'd skipped the war and made Saddam Hussein a straight cash offer—a trillion dollars, say, for Kuwait, Iraq and the oily cormorants. We'd probably still be money ahead! If he'd accepted, of course, we couldn't have hurled smart bombs at air vents. Pentagon spokesman Pete "I Can't Discuss That" Williams, among others, would have been out of a job. On the other hand, we'd have seen Saddam Hussein trot out of a bunker, blinking furiously and shouting, "I'm going to Disneyland!" Is this such a bad scenario?

Next to Vanilla Ice, he might be the most despised man mentioned in the media today, but I feel sorry for him. He could have had a condo in Hawaii or cell space with Noriega—he could have written his memoirs, *Iraq and a Hard Place*. He could have had a TV job as color man at minor global conflicts: "Ouch! That's gotta hurt, Bernie!"

But he threw it away, leaving me stumped in the New Elation. Gloating is not my strong point. And what's the point of my pointless negativity in the face of a national outbreak of perky enthusiasm?

Michael Novak, a director at the conservative American Enterprise Institute, stated the problem best: "This is the end of the decline. This is the decline of the declinists. The mother of all battles turned into the daughter of disasters for the declinists." Yeah, yeah, OK, Mr. Dutch Uncle of Defense, but tell me this: What's the daughter of disasters doing Saturday night? Dates are tough in the New World Order and she sounds like *my* kind of gal. **ME**



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Andy Warhol's Secret Desire to Rejoin His Idol, Walt Disney



Barbara Leary

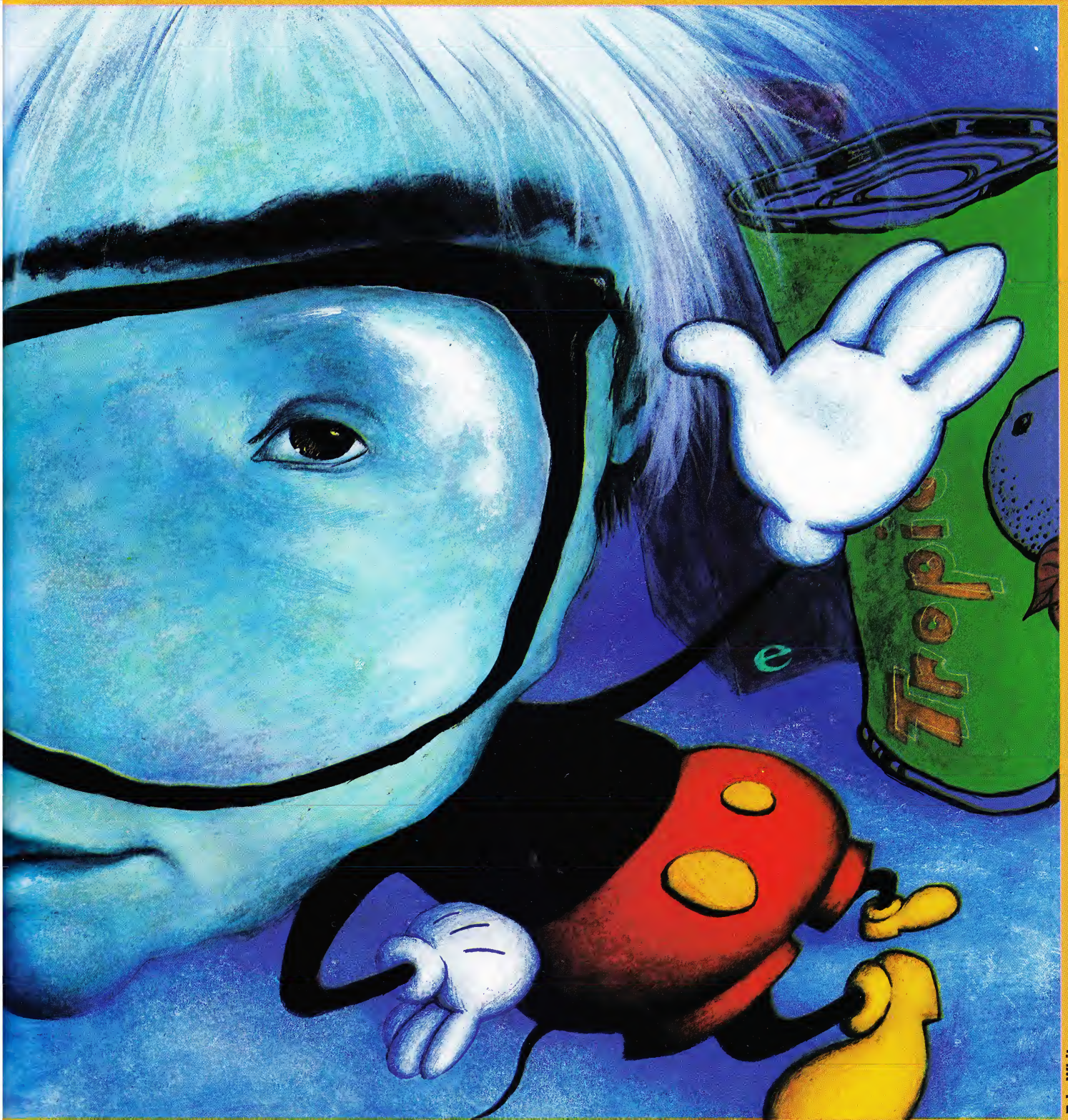
Our picaresque hero is Dani Mellon du Pont, a 37 year old black, bisexual male scene-maker and techno-voluptuary.

He is Barbara Leary's Orlando, an androgynous alter ego whose adventures are chronicled in her delicious malicious roman à cléf *All-Star Jet-Set Fast Track Sex-Play: The Adventures of Dani Mellon Du Pont*.

Consorting with Hollywood glitterati and assorted Euro-trash, Dani gives us a peak at the world of high-tech decadence. Certifiably manic-depressive, he takes us on an orgy of name-dropping and wink-winking. His SoCal, half-black, fast-track, frag-rap is intentional.

Really.

—Mu & Sirius



Eric White

FILE 1

DANI. DR. RICHARD ALPERT HERE. IMPORTANT THAT YOU COME ONLINE. PLEASE UPDATE US ON THE ANDY WARHOL HIBERNATION-REANIMATION PROJECT. AND ALSO, PLEASE JACK-IN TO THE ALCOR ELECTRONIC BULLETIN BOARD. YOUR E.B.B. FILE IS JAMMED WITH MESSAGES TO YOU FROM GRACE JONES AND JAYNE LOADER AND MICHAEL CHOW AND CHRISTINE BLACKWELL. V.S. NAIPAUL HAS BEEN VERY IMPATIENT. FOR STARTERS, WHERE ARE YOU IN THE HARD WORLD?

Yeah. Yeah. I know.

Grace is online, quarking me updates on her affairs with Abdul and hew new admirer, **Ravik Gandhi**, President of India. I must get the rest of Jayne Loader's new book, *Wild America*. It's a mega-Hertz screen grabber! Plus I am trying to get a glitterary Agent for my novel *Insanity Can Be Fun*.

TAKE IT ONE BYTE AT A TIME, DANI. WHERE IS YOUR BONE-WARE AT THE MOMENT?

Good question. Let me take a Meat-Mech reading.

I am on American Airline flight #103 from J. Fitz. K. to Miami, Fla., en route to my hide-away Villa Casa deCadence in the Bahamas. My flop-top computer is lapping away. First class, by the way! Thanks to my gap-toothed Cyberpunk pal, **Captain Crunch**, who has been known to wander around the reservation files of certain airlines, making sure his friends are well taken care of. It's

same ones that attacked him for attacking the Ayatollah.

Oh yeah. I know what you are thinking. More queenly fussing and feuding among the members of Grace's dusky fag pack.

NOW, DANI. THE MEMBERS OF ALCOR WANT YOU TO DESCRIBE, IN YOUR OWN WORDS, HOW THE CRYONIC SUSPENSION OF ANDY WARHOL'S BODY AND SOUL WAS ACCOMPLISHED. YOU

was one of the most important figures of the 20th century.

Andy told me over and over again that Walt Disney created Pop Culture. By Pop, Andy means popularization, humanization of ideas. Walt Disney created "screen-iconic" entities of such global-mythic attraction they were immediately recognized and loved by almost every quark on this globe.

According to Andy, Mickey Mouse books were translated into 276 languages. **Lenin** (Vladimir, not John) is second with 212. **Agatha Christie** is third and the Bible runs fourth and out of the money. The Koran and the Talmud were never in the running, thank gods. If any.

This is why the **Ayatollah Khomeini** put the \$5 million price on Salman Rushdie's head, and why Andy Warhol films like *Chelsea Girls* and *The Fuck Movie* are not shown to this day in Teheran. And why my novel, *Insanity Can Be Fun*, would have been burned at the stake by outraged

mobs of angry women wearing black sacks over their heads in Iran and Pakistan. If it had been published. Did you know that there is not one can of Campbell Soup for sale in Teheran? Or Kabul, Afghanistan? Or one Armani suit for man or woman there?

You see, Andy was well aware of my assignment as publicity director of the Alcor Foundation, Riverside, California, to personalize, popularize, humanize, Disney-ize the cryonic-hibernation Reanimation Option.

Andy shared with us the reasonable aversion to having his body and soul (i.e., brain) eaten by maggots or burned in an oven. For this reason (and others) he had discussed with me the procedures involved and,

**A brain-dead
neo-mort
available for a
transplant
from a
super-
attractive
brain**

called the CIFUC (Cyberpunk Infrequent Flyer Upgrade Club). Restricted to Quarks, of course.

OK. First the Grace Jones update...

In addition to President Gandhi hanging around her Band Street apartment, phoning her nights and days, **Salman Rushdie** keeps phoning collect, less worried about the \$5 million bounty on his head than his wife leaving him, but Abdul won't accept the call. Brother V.S. Naipaul is upset because the writers who are defending Salman Rushdie are the

ARE A HERO! SO PLEASE START FROM THE BEGINNING! Okay.

As you know, Andy became interested in cryonic immortality (as he quaintly so-called it) when he learned that **Walt Disney's** soul (brain) and flesh are being hibernetically frozen and preserved until **Eric Drexler's** MIT nanotechnology (atom-stacking) has mastered the logical steps to reanimate and restore the illustrious corpse.

Andy shared the almost universal belief that Walt Disney

shyly, as was his wont, wrung from me a promise that I would arrange for his "Hibernation-Reanimation" (HR) at that moment when his body had been "flatlined," i.e., when he was being evicted from his current and—let's face it—tacky, mittel-European, washed-out, low-energy, unstylish, albino meat-vehicle.

As you well know, honey, I "undertake" (ha, ha) this assignment because I have postponed work on my novel. Why? Because that kind of Science Friction no longer expressed the funereal dread I sense in American culture. The very concepts of cemeteries, undertakers, tombs, burials, crematoriums, obituaries, life insurance policies (which are, when you think about it, Death Assurance policies) are now a nightmare of insanity—this awful dream I scream.

May I put it bluntly in four-letter words? I did not want worms to eat Andy Warhol.

Okay?

And neither did he!

FILE 2: THE LEGAL AUTHORIZATION FOR LIBERATING ANDY WARHOL'S BODY AND SOUL (BRAIN)

WHY DID MR. WARHOL CHOOSE NEUROLOGICAL (HEAD-SOUL) FREEZING RATHER THAN TOTAL BODY CRYONICS?

At first he was of two minds. Andy could, of course, afford total body (\$100,000), but he seemed more interested in the neurological option (\$35,000). Andy liked the idea that, when his meat functions flatlined, his brain (soul) could be preserved awaiting the kinky moment when an attractive young person of either or both sexes would—as the tragic result of some car accident after the Junior Prom or a crack-house shoot-out—be lying comatose in the Emergency Ward, a brain-dead (i.e. soul-dead) neo-mort available for a transplant from a super-attractive brain.

But, perhaps it is time for some background briefing?
YES, PULLEEZE!!!

Okay. Last weekend, while Grace Jones went out to buy a very expensive Armani-designed kite, her boyfriend, Abdul, allegedly crossed the mid-line divider and crashed into a pick-up truck driven by a good-looking woman in Providence named Christine Blackwell, and brakes her knows.

The steering just went out on Abdul. He never did have good breaks. Everybody warned Grace, by the way, that Abdul was bad news. Chris Blackwell, in particular.

His head, for example, smashed against the windshield with such force that all brain-function (if any) stopped. Paramedics kept his neo-mort body alive for a few hours. What a drag. We could have put Andy's delightful brain into this black stud's body. What would Grace Jones think about that turn of events? Abdul, for religious reasons of his own, was violently(!) opposed to soul preservation, i.e. cryonic reanimation. Orthodox Moslems, Jews and Christians agree on this grisly fact.

FROM THE LEGAL STANDPOINT, WHAT WAS YOUR CONTRACT WITH ANDY WARHOL VIS-A-VIS CRYONIC SUSPENSION AND REANIMATION?

As I reported to Alcor Foundation, I promised him on three occasions that I would do everything necessary to prevent him from being buried by MOMA, or the equally insidious Valerie Solanis-St. Patrick Cathedral gang, or turned over to the M & O (Maggot & Oven) crowd, i.e. destroyed by legally sanctioned DNA-killers. In return for this promise, Andy gave me his power of eternity, which I transmitted by American Express.

On these three occasions, Andy begged me: "Please don't let my body be exhibited publicly in the Museum of Modern Art or St. Patrick's Cathedral." (At the time, frankly, I didn't know why Andy was so afraid of MOMA or the St. Patrick's Cathedral gang. Oh Boy! Now I know. And you, to your amazement, will soon know too.)

Read on!

WE HAVE MR. WARHOL'S PAPERWORK PROPERLY AFFADAVITED IN OUR FILES. HOWEVER, WE WONDER IF THERE WERE ANY WITNESSES TO THESE DISCUSSIONS?

There were several witnesses. **Ultra Violet**, despite the fact that she has become a Mormon or a Christian Scientist! In spite of this, I am sure she still wants to party like daze of old. I have witnesses! Viva two. These were two fine pioneer women that Andy signed up in his weirdo wagon train. **Edie Sedgwick** three. **George Plimpton** and **Jean Stein**, from her father's mansion on Angelo Drive, have not proved their get-down grit to me yet. Although I hope they still can and do.

The musical composer, that sweet, pixey darling, **John Cage**, also

knew about Andy's reanimation wishes. The musician **Lewis Reed** also knew. **Brian Eno** knew. **David Byrne** knew, but his track record is "shy" and he tends to avoid controversy. Career-wise, if you know what I mean. I cannot fault him for that. **David Bowie** will deny everything, of course. **Patti Smith** knew. Four editors of "Vanity Fair" listened to the tape of Andy Warhol, their names withheld, for obvious First Amendment disclosure reasons. Of top gallery owners, there were seven. **Tony Shifrazi** knew. Many famous pop artists including **William S. Burroughs**, **Tony Curtis** and **Jack Kerouac** and **Keith Haring**, of course. **Allen Ginsberg** was there, but he had other cute little thangs on his mind! You know! Which brings us to the case of **Peter Orlovsky**, who has a mind like a rusty cast-iron Warsaw xerox machine, so he certainly remembers these conversations. He liked the idea of Andy being "frosty freeze," as he so quaintly put it. "The Pope of Popsicles," sez Peter. Is there any true Polish bisexual?

However.

Peter's current habit of using his monthly welfare check to shoot cocaine in the veins of his foot could well nullify his testimony.

Andy, by the way, recorded these conversations and shot Polaroid pix of all present. Presumably. Including **Moire Moynahan**, daughter of **Sen. Pat Moynahan** and ex-gal-friend (and drinking partner) of **Sen. John Tower** of Texas. So they say.

In this respect—my story about getting bagged by a certain Danish socialite, **Claws von Bulow**, at Andy's wake—is to be the opening scene in my novel, *Suicide Is Painless*, sequel to the sequel. I sent the story to the *New Yorker*. Mr. Yorker hasn't sent it

back yet, but that doesn't mean much. They didn't publish Jayne Loader either.

FILE 3: A DISTRESSING PHONE CALL TO GRACE JONES AND PRESIDENT RAVIK GHANDI OF INDIA CAN YOU TELL US, WHEN, WHERE YOUR MISSION BEGAN?

I was notified on Hibernation Day minus-1 at 6:00 a.m. PST that Andy's vehicle was deteriorating

**Lewis Reed also
knew. Brian Eno
knew. David
Byrne knew.
David Bowie
will deny
everything,
of course**

sharply and that cardiac arrest was, at most, two days away.

I reserved space on the noon flight to New York, packed and headed airport-wise.

WHAT WAS YOUR COVER FOR THIS MISSION?

To model a Guess gene commercial shoot by **Helmut Newton**.

My true mission, of course, was:
1. to assist in the removal of Andy Warhol's body from the hospital to our mortuary on West 91st St.
2. to assist in the cryonic freezing of Andy

3. to ship the cryonic patient (Andy) to the California depository

4. to attend the Andy Warhol funeral at St. Patrick's Cathedral and the subsequent ghoulish body-destruction festivities to see if there were any signs that anyone was aware that Andy's body had been liberated from Christian neuroterrorists who were so enthusiastically driven to consign all of Warhol's organic tissue-information to the ever-hungry worms.

"Why should I?" she says.

So I must phone Grace from LA to tell her I will be late. And to tell Ravik Gandhi to postpone our interview. He is also fascinated by cryonic hibernation of his head and reanimation. Pre-incarnation, he calls it, being of the Hindu persuasion.

You realize that Andy's last video-performance occurred on Grace's MTV production of "I'm Not Perfect, But I'm Perfect for You." Andy, a Kaballist numerologist, to put it mildly, knew at the

These are certainly strange daze!

Writing becomes difficult & I have to be careful not to let my imagery become distanced. My writing is nothing if not the history of this illness. The entire staff of *Interview* magazine is in danger of suffering from the same Chronic Impression.

The role of the Museum of Modern Art in this matter is not exemplary. They showed no great enthusiasm for Andy during his long, long period of dying (1968-87). And then they go after him *con brio* as soon as they think (erroneously) that he's dead. The bakemeats are barely frozen-cold upon the funeral table when MOMA announces the pandomonium of a full-scale retrospective!

Well, the joke's on them who are marketing Andy like a combination of **Jesus Christ** and **Donald Duck**, and don't realize that Andy is not dead. He is sleeping. Next to... guess who?

Tony Curtis (Bernie Schwartz) is next. Don't laugh, his paintings are selling for six figures to Japanese tourists in Honolulu. Timing is everything according to quantum physics.

So.

The open-phone station in the airport is 5 feet away. I bend over for 15 seconds to digitize Grace. Her number is 212-989-@%&. The machine answering voice is that of Ravik Gandhi, President of India, disguised as a dapper Frenchman, name of Jean (pronounced Shawn) Yves.

Then I lean graceful against telephone booth shelf, my slim legs stretched out so casual to keep my peepers on my bag and my black leather jacket. Andy personally gave me this jacket.

Okay?

The least I can do for Andy. At this point I was showing minimal signs of catatonic coma. The persistent cough is due to smoking. Or so they say.

Jayne Loader & Grace assumed I was rich when they first met me, because of my patrician name and my connections with Andy. **Yoko Ono**, **Jacqueline Onassis**, and **Kim Basinger**, for whom our mutual attraction has produced enormous jealousy on the part of sexual unnamed! Yo! Kim! I also taught them the derivation of the word P.O.S.H. This is a show-off-snob trick they taught me at Lawrenceville when they first buggered me. In the small gym.

It was an honest mistake. I had all the accoutrements of P.O.S.H. The view-home in Jenkinstown. The chocolate brown complexion. The ebony leather skin from Andy. The summer home in Havre, Montana. The place in Cabo next to Euva and Garth. The winter home next to The Last Temptress, Chris Blackwell, in Nassau. The education (Lawrenceville, Yale, and after that, St. Cyr, L'Ecole Militaire). But what money I had was going fast. According to Jayne, there would be more down the line... but...

Who cares, in the last analysis, except those personally involved? Kim Basinger and I will never forget that moment we looked into each other's souls for nine and one-half seconds at the *Vanity Fair* party for **Man Ray** at the LA Museum of Modern Art.

Barbara Leary is Timothy's femme inspiratrice. She also invokes her own demon muse as writer and actor. She lives in Beverly Hills with five adoring males—Tim, son Zachery, dogs Bojangles and T-Bone and the cat, I.J.

Continued next issue: "An Ominous Beginning for a Glorious Mission: My Beloved Black Animal Skin is Nicked." "Why I Ran Up a \$3500 Phone Bill While Aloft." "Another Exciting Encounter with Jayne Loader." **M2**

Andy, a Kaballist numerologist, knew his nights were numbered

WHY DID YOU PHONE GRACE JONES AND PRESIDENT GANDHI OF INDIA?

Well, the story is that Grace was allegedly tipsy when she got out of the car at La Guardia. On top of this, my Eastern Airline flight to Kennedy was delayed. According to Jayne Loader, this is more or less an everyday occurrence. Grace was often tipsy getting out of certain foreign-made cars, which her nouveau friends call "limos." It is absolutely no use criticizing her. According to Jayne, Grace hates criticism. I do too, as you well know. I don't know about Grace because I never criticize her or Jayne. She just can't take it.

time that his nights were numbered.

I humbly suggest you play this MTV tape and observe Andy's catatonic comatose state. How well Andy concealed his (1968) illness!

Do you want more detail?

YES, PLEASE SPARE NO DETAIL. THE PRESERVATION OF WARHOL'S IMMATERIAL ENTITY IS OF GREAT HISTORICAL IMPORTANCE.

OK. I walk across airport lobby, throw bag on chair, drape new black leather jacket protective over bag.

You realize that Andy's chronic impression was contagious. It nibbled my brains out like worms.



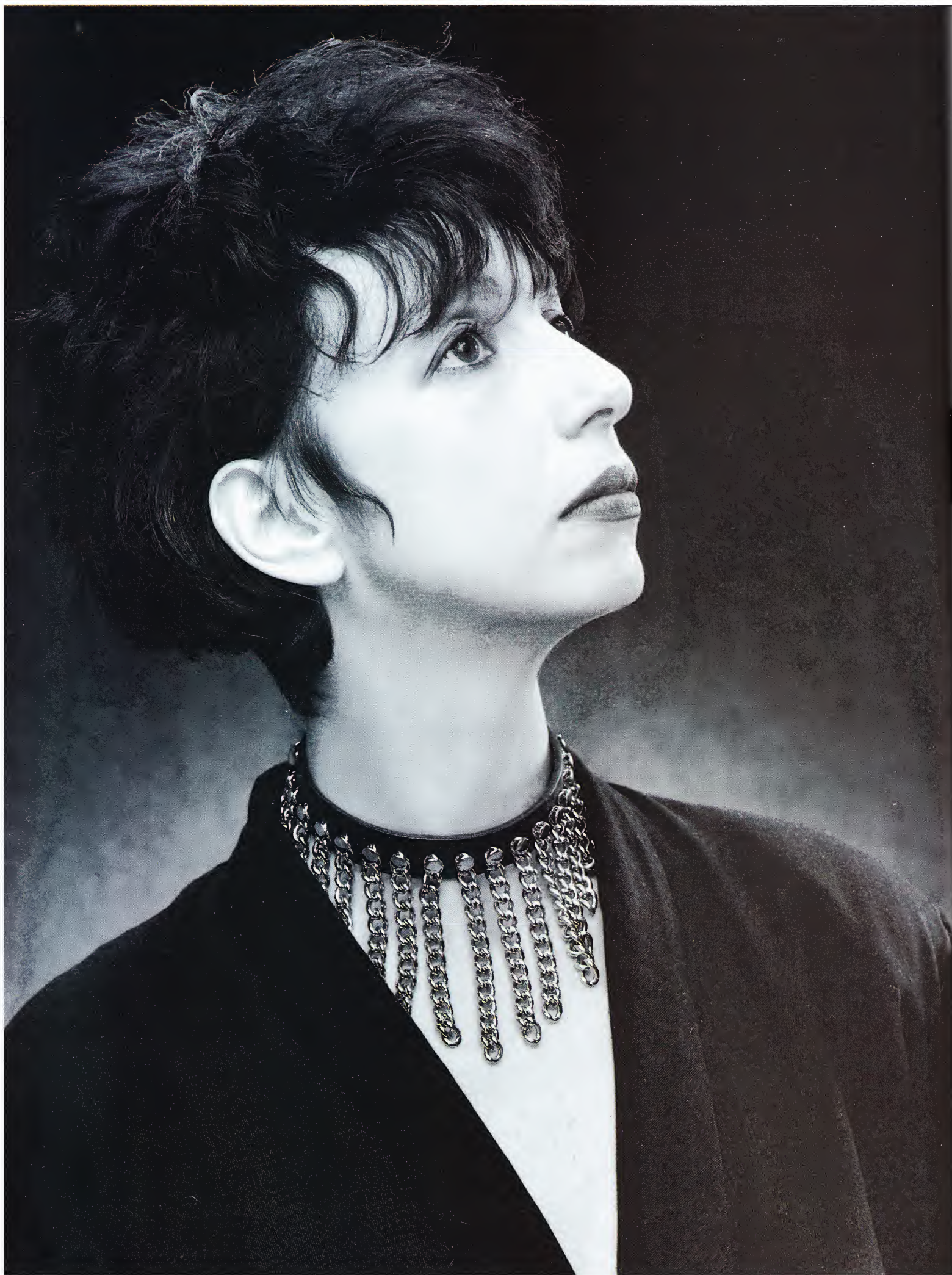
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Avital Ronell

on Hallucinogenres

H Benjamin Franklin discovered electricity, but Bell and Watson made it talk. Or perhaps electricity always had something to say. After all, the crash of lightning has often been heard as the voice of God.

Today, electricity is multi-lingual. Not only does "011" connect you with fantastic distances, but, nearby, there is the constant alien whirring and chirping of modems and fax machines.

In all this cacophony, Avital Ronell is blessed with sensitive ears. Her work, *The Telephone Book*, picks up on the question of the telephone and on the uses—"spiritual, technical, intimate, musical, military, schizoid, bureaucratic, obscene, political"—to which it is put.

The Telephone Book asks: What happens to us when we get on the phone? What kind of system do we tap into? Whose demand are we answering when we pick up the phone and say, "Yes?" Though Avital is a professor of Comp. Lit. at UC Berkeley, her latest work is a strange cross-breed—neither philosophy, fiction, nor memoir—influenced by Paris, written in American, truffled with neologisms, with a format that doesn't bow down to neat rectangles.

She tells how in the first years of the telephone, Thomas A. Watson spent hours on the line, listening to the pop and static of electrical discharge. He hoped that the spirits were speaking. Nor was Watson the only electro-spiritist around. *The Telephone Book* cuts in on scores of conversations, from Alexander Graham Bell to Martin Heidegger. We hear also from both Freud and Kafka, who inform us that "there is no no on the phone." These conversations intersect each other, with Avital at the switchboard and plenty of static. Dali once said "I am a hallucinogen." With Avital, it could be said that she's a walking, non-mimetic "hallucinogenre"—a word she minted and perfectly exemplifies. Antic and freewheeling, she writes with seductive abandon.

Where does she come from? In her early, jobless, expatriate days Avital was nurtured by her European friends, including Jacques Derrida and Hélène Cixous. She wrote her first book on the streets; or, more exactly, in those Parisian cafés where nobody demands to know what you are doing. Today, Avital is hanging with Kathy Acker and Andrea Juno, the deviant boss girls of a new Bay scene. She talks about her politics as "post-politics," her position as "left of left." Hints are made about collaborative work, public performances. Still, no details are let slip.

What happens when the cultural reserves of the West, the "great books" we all half-know, meet the babbling techno-apocalypse of the Bell System?

We asked. She answered. But you're going to have to listen fast.

—Gary Wolf

An Interview by Gary Wolf

MEDIATIC INCURSIONS

MONDO 2000: How would you read the computer or electronic or cyberpunk culture?

AVITAL RONELL: In the first place, I'm less interested in the instrumentality or "tool-ness" of mediatic incursions than in the relation to a hallucinated exteriority that these reflect. By that I mean the place where the distinction between interiority and exteriority is radically suspended and where

If you locate the literature of electronic culture in the works of Phillip K. Dick or William Gibson—in the imaginings of cyberpunk projections, or the preserve of Virtual Reality—then you could say that electronic culture shares a crucial project with drug culture.

I confess that I am interested in the links between the electronic and drug cultures in part because drugs constitute a place of non-knowledge. As such, it has always

most negative underside. The shameful history in which we find ourselves is going on as if we knew what drugs were. One has to investigate an entire rhetoric of drugs. I have to say I'm neither for nor against drugs, yet I think that they are conceptually treated with unbelievable awkwardness and stupidity.

Heidegger makes some very interesting points about addiction. He says the problem with addiction is that it limits you to what is merely available; you can't think beyond what is ready-to-hand.

It occurs to me that we may need superior forms of drugs, superior hallucinogenes. My question was, in a society that is cracking down on all these hallucinogenes, isn't this society going to show hostility and aggression toward *all* inventions of fiction and hallucination? After I finished writing the manuscript I started to see that *indeed*, when I came back

from Paris, there's another war—on art. The drug war is part of our whole Puritan history of a war against artifice. It is very complicated and needs to be thought out, because at the same time we are addicted to oil, which is another type of substance, linked to our equipmental drive.

M2: What's a hallucinogene?

AR: It's something I invented. It's genres that are related to non-mimetic conventions or fantasies that aren't tied to referencing. This indicates a difference between a fictioning that produces no value and the lethal simulacra attached to our current war machine. We are undeniably addicted to technology, yet the unreflected exclusion of drugs remains enigmatic. There is no war that is not a

Electronic culture shares a crucial project with drug culture



this phantasmic opposition is opened up. That's why I'm less inclined to read the machine as an object than to observe the meta-physical cravings it reveals.

By electronic culture, I suppose we mean a certain cybernetic swipe at metaphysics. To a large extent cybernetics has been superseded by the more sophisticated discipline of artificial intelligence. But it's managed to retain the essential distinction between human and machine. Before all man-machinic hybridizations, a technology of the human had already been in place. My next focus, in a new book concerning Being-on-Drugs, is on "the chemical prosthesis."

attracted the crudest interventions. Where earlier I looked at the question of technological addiction via the telephone, I'm now raising questions about the structure of addiction as such.

UNMEDIATED ADDICTIONS

M2: You're about to publish a book on drugs, and you're teaching a seminar on the question of drugs. Has anyone accused you of pushing drugs in your classes?

AR: Well, yes, because once you start thinking about something that has been cordoned off as untouchable, and around which there's a massive discursive silence, you're associated with its

war on drugs. I wonder what kind of drugs our troops are taking.

M2: Many technophiles are also sympathetic to what used to be called "the drug culture." Is there a link between technological obsessions and drugs?

AR: There are many connections between drugs and technology. Baudelaire said that alcohol was a way to work your phantoms, to make them vanish or emerge. You have to ask yourself: whom are you drowning in your alcohol? Whom are you preserving in alcohol? So for Baudelaire, intoxication was hard work and it was linked to the mnemonic apparatus. It had everything to do with a resurrectionist memory. Intoxication has something to do with thinking in the mode of memory banks. But both technology and drugs offer a sort of escape route, an atypical place of exit.

CONDENSE & PRESERVE

M2: In *The Telephone Book*, you describe how technology serves our fantasies of protecting, preserving, and communicating with the dead. I want to ask you about this in relation to current fantasies about computers. In speculative writing on technology, for

instance, in William Gibson's *Neuromancer*, computers are seen as tools literally condensing and preserving the identities of dead individuals.

AR: I am currently working on a paper with a colleague on cybernetic corporeality and the computer prototype. The question of how to bracket "life" is considerably complicated by the itinerary of the computer virus. As for "preserving identities," it is so evident that with all this activity of seeking or finding an identity, there is no original identity. The degree to which we borrow traits or features of these machines is more impressive and interesting to me than the opposite kind of argument that is frequently made—will machines imitate us? The very notion of having a breakdown, of a nervous sort, is borrowed from early technology—a machine that breaks down. What interests me is our immense capacity for borrowing structures, for taking them out on lease, on loan. I notice that students "click in" to things, or "delete." They're perfectly capable of reproducing the mechanisms of the machines with which they are intimate.

M2: What do you think of cryobiology, and other literal preserving and condensing movements?

AR: They don't surprise me at all. The struggle with finitude is an absolute war and it will never stop. At the same time I think I recognize some dangers in the culture of refusal and denial that we find ourselves in. It is a desperate and deluded desire. I'm convinced that the place where technology could approximate something like a positive action would be in the medical sciences. Gynecology, for example, is still brutal and primitive. There's no excuse for that. I'm certain that medicine—including all kinds of pharmaceuticals—will and needs to be improved and to work for less moralistic but more necessary ends.

One has always wanted to outlive one's deadline—and to preserve the other and avoid mourning. The promise of science fiction is that it does try to invent the future in a way that very few other modes of articulation are capable of doing. And, even though it might not be able to create the conditions for certain projected futures, it dramatizes the effort to break from a servile relation to the past.

There are certain things that are striking. We may be the last generation to grow old. Certain traumas may be reduced and technologically one *should* be able to reduce them. I'm all for that. I think there's entirely too much trauma.

M2: You associate the phone call with the verdict, the death sentence, and yet also with the reprieve.

AR: The fear or alarm that attends each call is always a return to the knowledge of our finitude. That's the telephone's alarm: it is like a death knell. But, the telephone also participates in a certain dialectic that Jacques Lacan associated with love. You are always expecting love and yet when it comes, it's always a surprise attack. Sudden, shocking, it was meant to be, yet it is a chance encounter. I also noticed that the telephone has re-Oedipalized us. One is always calling home, one is always attached to this umbilicus. Contact with the other may be disrupted, but the break is never clean.

SHARDS & TRAUMAS

M2: What's the origin of your concern with the telephone, with the logic of connection and disconnection, etc.?

AR: It could have emerged from my history of deracination and nomadic existence. I've always had this feeling of being circulated through different transit sites. For instance, I came to the United States from Israel, itself a country of historical displacement. This has influenced my sensitivity to persecution and technology. My work has offered a point of relative stability. It was also, frankly, a higher drug, a type of Virtual Reality. When I came to this country I lived in bad neighborhoods, and the telephone was a way of being off the streets and of bypassing street dialectics.

M2: Why did you live in bad neighborhoods?

AR: Why not? I guess in fact we were poor immigrants. We came via Israel; my parents were German Jews. They kept being disappointed by mythologies of nations. My mother was a secretary for Ben Gurion and was from the start pro-Arab. She was extremely shocked at the demarcations that were occurring.

M2: And your schooling?

AR: I went to public school in New York and then moved to New Jersey. In New York I was in a "special class," which meant an advanced class. Therefore, in New Jersey, I was again placed in a special class, but in this case it meant a class for children with learning disabilities. Once you get over this border between classes you can't cross back. But I was very well adjusted in New Jersey, in the special class. Later I received my Ph.D.

The drug war is part of our whole Puritan history of a war against artifice

from another school in Jersey: Princeton.

M2: Were you an obedient student, or were you always rebellious?

AR: When I lived in Brooklyn I was a member of a "little league" gang. I was called the boss girl. We used to break windows and use the shards to inscribe members of other gangs. It was crazy. I got stabbed. I was eleven.

Because of this confusion in New Jersey about the special class, my parents put me in a private school. There, the English teacher threw me out of class because he said I talked like a dock worker. I was extremely hurt. Everyone was rich. I was treated like the total idiot slut.

When we had a test, the teacher would tell us who wrote the best test. One day, after a test on Shakespeare, on *Macbeth*, the teacher said he was going to read the best essay out loud and he wanted us to guess who wrote it. Then he started reading my work.

At that moment my greatest ally became Shakespeare. I realized that writing didn't have an accent, a Brooklyn accent. From that time on, I could count on literary works to be my accomplices. I made the shift from a certain danger zone in the real world to literature. The schizo landscape of New Jersey receded and literature became the place where I could be daring and take risks. I went from glass shards to other inscriptions.

TECHNO-MYSTIFICATIONS

M2: You have a section in your book called "Against Apartheid." Is the question of technology linked to the question of justice?

AR: Completely, in the sense that

justice is always a promise linked to the future, requiring infinite work and the capacity to imagine a genuine mutation of the present.

M2: How?

AR: Derrida, Deleuze and others have made persuasive inroads on these questions. Existence has been overtaken by technology. I mean that in a strong, active sense. You can't say, "Oh, out there

tion of invention is problematic. It always assumes a male metaphysical subject who will have created something and his "proper" (e.g. white) name is associated with the invention. Nonetheless, that's our paradigm grid. It so happens that the men who were mobilized and listed as inventors often had a very deep sense of a tragic kind of justice. They all wanted to restore justice to some sort of a deficient situation or condition.

In the case of Alexander Graham Bell, his mother was deaf, or part deaf, his wife was deaf, he had lost a brother and wanted to reconnect. Now, he was also, as it turns out, radically anti-racist. He was seriously disgusted with racism in America. For him, giving the Other a voice was not much different than giving or demanding that every human being

have a vote. He was literally engaged in what it means to let the Other speak or have a say, a collective say. This is why I wanted to investigate what it means to speak, what it means to have a voice or a vote.

Technology has everything to do in its conception and history with the possibility of certain types of liberation. Some of them might be naive and foolish hopes, utopian mystifications, but nonetheless it is involved in a project of globalization and connectivity. In fact, politics has become secondary to technology.

I'm interested in the electric epoch, which goes, at least according to the trajectory I set up in the book, from the telephone to the electric chair. Electrocution has a very rich and complicated as well as undocumented history. The way we decide, according to liberal interpretations, what constitutes torture or acceptable state punishment furnishes an extremely compelling object of study. I must say its unbelievable that we still put people to death.

M2: How is the electrical epoch a distinct epoch?

AR: Of course I have to say that we are at the end of all "epochality." I don't think that there's any clear or absolute rupture between moments. What the invention or discovery of electricity renders visible is the switch from something natural into another movement of language and perception. Electricity originated in a certain divine, auratic context, as something that was stolen from the gods. In lightning there is that romantic competition with or borrowing from a nature that has become demonic and destructive, a flash temporality that is non-historical. Recently, U.S.

Crisis in immanence: drugs, it turns out, are not so much about seeking an exterior, transcendental dimension—a fourth or fifth dimension—but rather they explore fractal interiorities. This was already hinted at by Burroughs' "algebra of need."

Time release

Crack Wars I: Toward a Narcoanalysis

When he wanted to formulate the task of a philosophy yet to come, Friedrich Nietzsche committed this thought to writing: "Who will ever relate the whole history of narcotics? It is almost the history of 'culture,' of our so-called high culture" (*The Gay Science*, §86). Our work settles with this Nietzschean "almost"—the place where *narcotics* articulates a quiver between history and ontology.

Addiction will be our question: a certain type of "Being-on-drugs" that has everything to do with the bad conscience of our era.

—From *Crack Wars: Literature/Addiction/Mania*
University of Nebraska Press, forthcoming

they're doing technology and over here we're not." There's no safety zone and there's no off switch to technology. This is why I thought it was necessary in my book to trace the history of the invention of the telephone.

I have to say that the very no-

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If you still believe in the absolute privilege of the Book, you're in trouble

fighter pilots have borrowed the rhetoric of lightning for their Desert Storm.

In documents and literary works that seem to be devoting themselves to electricity, one of the major obsessions is the possibility of reanimating the dead, of switching something on that might have naturally fallen into decay or decomposition. The very possibility of a switching on, turning on, re-calling, is something that intimately concerns electricity. There's a whole new borrowing system of possible reanimation. In a sense, the Frankenstein monster owes its existence to this phantasm. Andrew Crosse was an electrician and a man who turned Mary Shelley on, so to speak. This would be just one aspect to pursue.

M2: In *The Telephone Book*, you discuss Heidegger's involvement with the Nazis. You read an interview in which Heidegger claims to have had no involvement other than answering a telephone call from a storm trooper at the S.A. Bureau.

AR: The original impulse was simply to read the strange confession that Heidegger makes to a newspaper. The interviewer, who is somewhat aggressive, asks, "Well, what was your relation to politics in the Third Reich? What was it? What was it?" And Heidegger repeatedly denies any relation. The interviewer says, "Well, surely you must have had some relation." And then Heidegger says "Well, one day when I was the rector of Freiburg University the phone rang, I picked it up; it was a storm trooper of the S.A. Bureau and I answered the call."

I freeze-frame the story at that moment and I repeat the question.

What does it mean for Heidegger, who has written about "the call" so insistently and relentlessly, and Heidegger who has asked "the question concerning technology," to say there was no relation, that he merely answered a call?

Answering a call is, as such, almost a transcendental predicament. Given the fact that the telephone is everywhere and one is constantly in the predicament of accepting a call, what are we called upon to do? What are we doing when we answer automatically? You don't know who's calling. You don't know what you're going to be called upon to do, but yet you are spontaneously in this posture of saying *yes*.

Freud says there is no way of saying "no" over the telephone. The syntax demanded by the phone is that as you're picking it up, as you're receiving a call, you're *already* saying "yes." You can't at once accept and deny a call. Laurence Rickels has commented on this in his media book. I consider the telephone a kind of utterance that we have to respond to. There are all sorts of technological utterances that we respond to. When the tea kettle whistles, for example, you respond.

COGNITIVE STATIC

M2: Before we end, I want to ask you about static.

AR: You mean static as a conceptual force?

M2: Yes, all the static in your book—the interruptions, the rough transitions, the difficult language—that interferes with reading. Your book is like a hip-hop mix, full of extraneous elements.

AR: The possibility of a full reading without trauma is completely inconceivable! There was always static, but there are certain ways in which it has been thematized. In terms of a kind of scientific history, static is a place around which all great discoveries of the twentieth century are organized. Static is the whole other side to organized sound. Something that is prior to signification has an entirely different temporal structure. This is what interests me.

Static has this wonderful semantic range of meaning. I'm sure that's where Public Enemy and L.L. Cool J and others come in. There's an interference with a master discourse. They're jamming the codes. That kind of parasitic noise or random eruption has always been a constituent part of language but a part that's been kind of obliterated. All those mean metaphysics of what is proper, what is clean... and property/propriety comes in at that point. I remember when I was a teenager, "Don't give me any static" meant "Just comply" in a kind of smooth obedience. Always, as you know, bad neighborhoods were linked with noise, and they still are. What's Spike Lee's film called again? I saw it in France...

M2: *Do the Right Thing*?

AR: Right. It thematizes this mobile, random noise or parasitic blast that is unmapped and portable. I'm also interested in the history of noise freaks, listening to the production of unmeant signals, which of course is very close to Freud's discovery of the unconscious—a kind of meaning which is neither intended, elaborated, or in any way mastered.

M2: You've given us a lot of static in your book, and the book has become something of a sensation. Is there some reason people are open to static now?

AR: Perhaps you could explain that to me, because you know I'm encapsulated in a very silent place. I've read reviews of the book, but, surprisingly enough, people don't say much to me about it. There's been this dive into silence. Something has happened to cut off communication. But yes, with all the discontinuities we are experiencing and the disruption of "Meaning," people are more open to static—they are the test site for its effects.

DESTRUCTIVE JOUISSANCE

M2: What I mean is that your book is disorienting. It is painful to read. And yet, there's a kind of pleasure that's associated with this. People enjoy it. People also enjoy, for instance, a performance by Survival Research Labs.

AR: I have to say that when you link pleasure and pain, you are pointing to an important kind of cohabitation. One of the things that has always interested me is *our* desire for a pleasure that is also terrorizing. This is a Nietzschean insight, it's nothing new. The disintegrating self can, in fragmenting and splashing over the abyss, experience a limit of pleasure. It's a Nietzschean insight, but certainly nowadays our modalities of pleasure are often associated with the most destructive sorts of signifiers. "To have a blast." "It killed me." That's our common idiom. This kind of destructive *jouissance* or bliss seemed to me to be a necessary thing to explore.

M2: That leads us back to the question of the historical specificity of this kind of pleasure. Do you have an idea that there is a postmodern era, a moment in which your sort of writing becomes possible?

AR: I don't follow any kind of historical movement that would be linear or chronically chronological, so to speak. In the case of the telephone it is not even clear what its identity is. Is it an object? Is it an artwork? Is it a replicant or some sort of celestial monstrosity that has connectivity to a voice that's absent, a disembodied voice, a godlike intrusion?

The telephone is exemplary, first because it's just there to operate as a part of the technological will-to-power, but also because it won't permit you to unfold a simple history around it. It resists any kind of smooth unfolding, interrupting as it does, screaming for immediate responses. It also breaks up any hope for historical coherency or continuity as an object because in a sense it has no history.

M2: Why does the telephone have no history? Does technology itself bring history to an end? Do you think, as Timothy Leary seems to, that, with technology, we can make a world in which pleasure will have no limits?

AR: That's very complicated because as you know I'm not simply ecstatically open to the possibility of a new technological or cybernetic horizon. First of all I was trying to read, in an archaeological way, the demons of technology. I see Leary's optimism as a kind of necessary but reactive move against the idiotic but pervasive desire to repress technology—as if that were possible.

The real question is about pleasure and technology. If technology is to promote pleasure, we can't have simply a naive understanding of what constitutes pleasure. At least since Freud's *Beyond the Pleasure Principle*, in which you find out that the death drive is the sovereign agency—and

where there is such a thing as destructive *jouissance*, the desire to get wasted, or blasted or hit by something—pleasure can't simply be pleasure.

I just think that the first step should probably involve "a will to rupture." In other words, to let go of the powerful philosophies that are only backward looking, and to show a will to rupture so that the future can be guaranteed. I don't see enough evidence of thinking toward a future that would be somehow acceptable. One basic fact of life is that there is yet no justice. Humanity is still unjust. So it's not as though technology would somehow understand how to inscribe itself in pleasure as it now is understood. I really think we first have to do a lot of intellectual work, to bring pleasure into sync with decency.

NIPPLES & NON-UNDERSTANDING

M2: The Telephone Book has a very unusual design. No page is the same. Like a palimpsest, there is text written over other text, strange graphic insertions, blank pages. How did this come about?

AR: If you really think that we're in the era—which we are—where the metaphysical god is dead, came crashing down, and you still believe in the absolute privilege of the Book, you're in trouble. You know that the Book is the most heavily cathected object in western culture. So one of my hopes was to *perform the content* of what I say. In other words I wanted to crack open the sovereignty of the Book. Very fortunately, the University of Nebraska Press has a wonderful designer, Richard Eckersley. I think Richard did a

really compelling job—every page is different.

It turned out to unsettle other presses because whereas a press has traditionally demanded that authors conform to their notions of style, here's a press that on the contrary read me and published my more difficult work. There was never a moment when they said "This doesn't make sense." If it didn't make common sense, they made it graphically make sense. There's a section called "The Bell Nipple" for which they found a graphic image of a phone which absolutely reproduced the nipple phantasm that I talk about. It probably created a mutation in traditional relations between author and press because they were *reading* me! It is the first time that I've felt that the activities of reading and writing were simultaneous and exalted experiences.

M2: Are you concerned that your style might make you difficult to understand?

AR: You know in the drug book I say that understanding as such—thinking one has understood—is a disaster. It places closural moves on a problem. Perhaps that's why it was so important when Nietzsche said "Have I been understood?" It was important to leave it open, to not close the book, to not throw the book at anyone, just to leave it open to the non-understanding that reading always implies. Right now I'm not on the side of understanding in that simple sense of "Yes, I understand," and that's it.

To make things "perfectly clear" is reactionary, stupefying. The real is not perfectly clear. **ME**





Antic Women

*"Avital Ronell,
Kathy Acker
and Andrea Juno
—deviant boss girls
of a new scene..."*

These Models of Subversion—theorist Avital Ronell, novelist Kathy Acker and *ReSearch* editor Andrea Juno—are potent agents for cultural destabilization. They figure strongly in *ReSearch*'s next foray into disruptive publishing, *Angry Women*—a send-up of the late 50's *Angry Young Men*. The supporting cast includes Karen Finley, Diamanda Galas, and Lydia Lunch. Angry or merely antic, these women are definitely dangerous. Andrea made the cover of *Frisko*'s "Most Dangerous Women of the Bay Area" issue—much to the chagrin of *MONDO*'s own Queen Mu, who didn't make runner-up.

Angry Women will be the latest in a series designed to scarify (or at least scare!) the body politic. Their last blockbuster pub *Modern Primitives*—with its outrageous coverage of mutilation and body modification—is still raising wheels on our psyches! *Angry Women* will be out in September of this year. **ME**

Photo: Bart Nagel
Assisted by Stafford and St. Jude
Make-up: Julie Rankin

Reading the

Kathy Acker Interviewed by Larry McCaffery

hen Kathy Acker smiles, her face shifts 2000 years in time, from Periclean austere to postmodern punk. Embedded in one of her front teeth is a jagged chunk of bronze.

She is her own text, her own gallery. She's a body builder in more than the usual way: her muscles animate spectacular tattoos. She has seized control over the sign-systems through which people "read" her.

You may also read her books. In *Empire of the Senseless* (1988) she systematically kills the patriarchal father, tries (but eventually fails) to imagine a society freed from Oedipal considerations and all taboos, and introduces a file of outcast myths—cyberpunk, modern primitive, pirate, motorcycle gang—to explore control over one's life and the use of signs to create the meaning of that life. In *Memoriam to Identity* (1990) inhabits literary and historical materials—the work of Rimbaud and his relationship with Verlaine, Heian court writing, Faulkner—to present a contemporary version of the myth of romance.

During her expatriate years Acker became a major figure in postmodern and feminist fiction. Her novels (with spectacular Robert Mapplethorpe photographs on their covers) were attacked from right and left. Some feminists were made queasy by Acker's depictions of emotional and sexual masochism, her obsession with obscenity. Some loathed her analyses of political and cultural repression; others, her takes on 1960's Hippy utopianism. After a dicey decade in London, Acker moved back to the states, specifically San Francisco, where she teaches writing at the Art Institute.

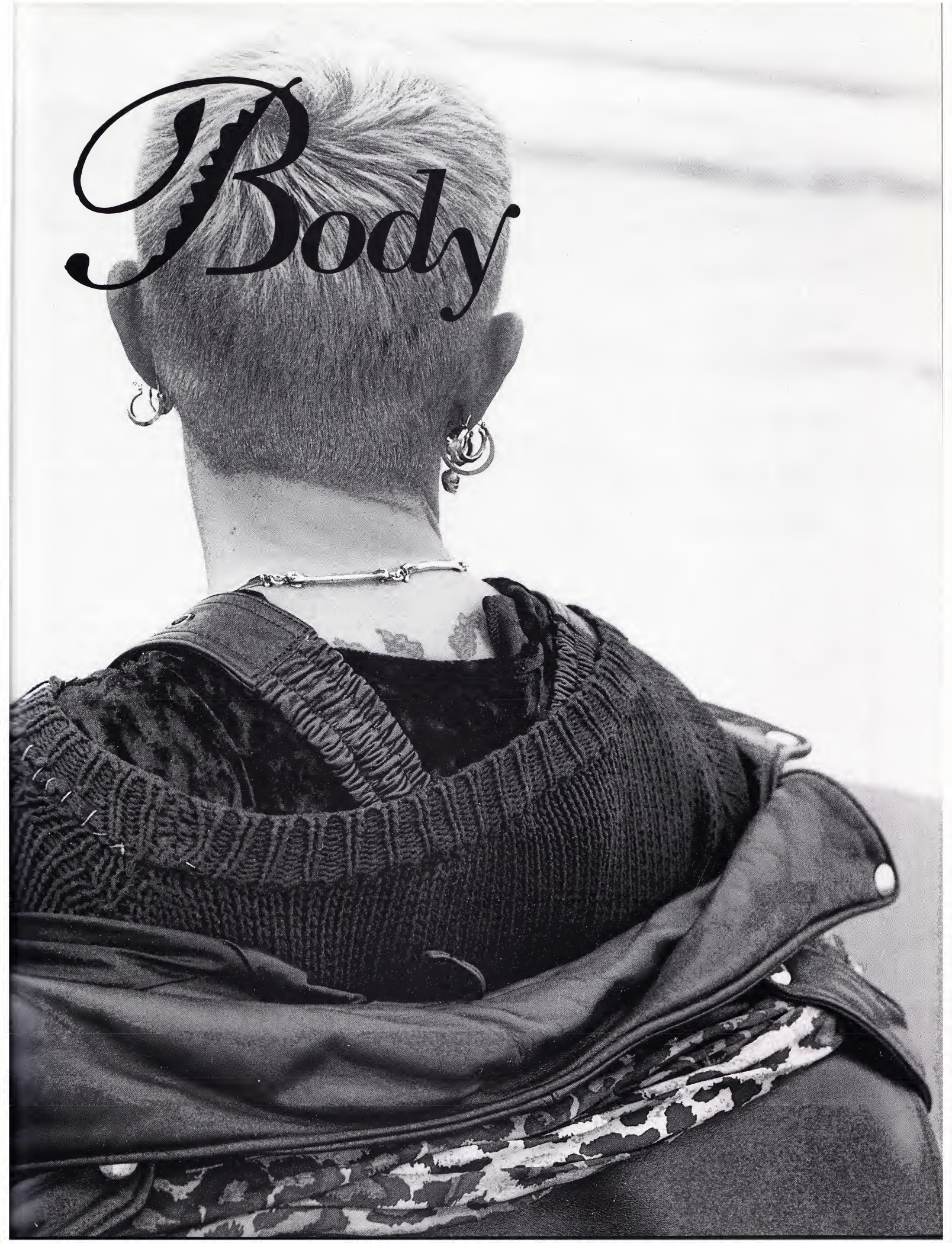
Past mistress of the cunning juxtaposition and the Fine Art of Appropriation, her writing betrays a multitrack outlaw intellect. And she doesn't shrink from mining outlaw "low culture" genres like SF, pornography, and detective fiction. The net effect of her work is not merely to deconstruct, but to decondition.

Acker is passionate and articulate, energetic and authoritative. Laughter and self-irony punctuated her rapid-fire presentations delivered in a heavy New York Jewish accent.

Larry McCaffery

Stephanie Rausser

Body



OUTLAW EXPATRIATE

MONDO 2000: You took up residence in England permanently in the early 80's. You've said somewhere that money was one of the main reasons—you couldn't make a living here in the U.S. What brought you back?

KATHY ACKER: One reason was that my publishers were taking *The Adult Life of Toulouse-Lautrec* off the market because they were afraid Harold Robbins might sue me. I had told them that I *use* other people's material—I *appropriate*—and this was *not* plagiarism. Plagiarism is using somebody else's materials and representing it as your own. I've always liked the idea of using other people's materials and having them use mine. [They] made my life *hell* for two months—calling me up with

threats... What if I were ever *seriously* attacked while I was living in England? Despite all the bullshit going on right now here in the States, about censorship and the N.E.A. and so on, this country is still very anarchic—there's a Bill of Rights, and artistic communities support their own. But what if I were in England and anything seriously political ever happened to me? I could see how vulnerable I'd be. I'd be screwed.

M2: Your work seems to draw on a pretty eclectic range of writing and critical theory—everything from *Don Quixote*, *Great Expectations*, Faulkner, Rimbaud—to cyberpunk SF and the most advanced stuff being written by post-structuralists. I like the way you pillage “low” art—those despised genres you mentioned—SF, pornography, detective fiction. What features of these forms interest you in terms of your own work? Let's take a form like detective fiction, which at first glance seems to be more epistemological than political in its orientation. What might draw you to this particular form?

KA: It was a very epistemological notion, this idea of trying to find out who did something—and how and why—by writing an Agatha Christie version of Pasolini's murder. [Editor's note: her fictive version was published as *My Death, My Life* by Pier-Paolo Pasolini.] Of course, it didn't work out the way I planned. I didn't want a political way of solving the murder, so I chose three categories

that seemed appropriate—sex, language and violence—and then let myself just go off in whatever direction I wanted with each one. Once I really got into those categories, I found that I wasn't so much interested in solving his murder—that was impossible, because everything was so completely covered up—as in his life and his work.

POSTMODERN CUT-UPS

M2: You've been doing more things with SF recently—*Empire of the Senseless*, for example, uses a variety of SF motifs generally and appropriates materials out of William Gibson specifically. What was the source of interest in SF there?

KA: In the case of *Empire*, my interest in SF had to do with having read *Neuromancer*, which excited me enough that I actually wrote Gibson a fan letter—which I never do. By the time I was working on *Empire* I had



Stephanie Rausser

already worked through several different traditional genres, and I was wanting to move into current genres, expand my muscles in a way. Do I like SF? Sometimes, sometimes not. But I do like cyberpunk, especially Gibson.

M2: As you said, you began writing your books back in the 70's, before the term "postmodernism" was popular. But obviously even your very earliest works seem to contain features that later on would be called postmodern. How do you now situate yourself in this area?

KA: I certainly had no idea what the term meant when I started writing. When I started out, I didn't know about the work of Foucault or—what would be more important to me—Deleuze and Guattari. I knew I wanted to plagiarize, but I didn't have a clear theoretical justification for what I was doing. So I just started finding these different texts and putting them together.

M2: That kind of textual juxtaposition and manipulation sounds a little like what Burroughs was doing with the cut-up form.

KA: Burroughs has been a major influence on my work. But what I was doing wasn't really the same thing as cut-up. Actually the main impulses in my work early on were coming from outside literature altogether. I was very influenced, for example, by Bob Ashley's music. What I wanted was a "de-narrative," if there is such a word. You see, there was no way I could really talk about it until the punk movement came along and I met Sylvère Lotringer. That was about 1976. Sylvère introduced me to the work of Felix Guattari, Gilles Deleuze, and (somewhat) Foucault. Those were the main ones for me. Derrida was never as important. And I never took to Baudrillard's work. But it was only then that I began to find a language for what I was doing, especially in the ideas of decentralization, different notions of sexuality, and the relation of sexuality to language and politics. Reading Kristeva's *Powers of Horror*—that was another step.

M2: Did you identify yourself as "postmodern"?

KA: As you can tell, I was "plagiarizing" and doing other non-narrative, intertextual experiments well before I discovered the discourses that began to attach themselves to the term. Honestly, my main response when I began to hear the word *postmodern* was, "Oh, now that people have this word *postmodernism*—which lets them pin a label on what I'm doing—they're not saying I'm a pornographic little shit!" [laughs] But you know, there's a sense to why I do what I do—it gets frustrating to hear your work described so often in irrelevant or condescending terms.

M2: Do you yourself identify what you've been doing with the term "deconstruction"?

KA: Sure, but I did so mainly from *Great Expectations* until *Empire of the Senseless*. That's the period when I was taking texts and trying to see what they were really saying in a social, political and sexual context—essentially the program of deconstruction.

M2: Give me an example of what you are talking about.

KA: For instance, I'd often take texts that were either sexual or political—usually fairly *hot* texts, like the beginning of *Great Expectations*, where there's that incredible Pierre Guyotat text—and I put these next to the stuff about my mother's suicide. Now one speaks about one's mother's suicide in a certain way. And one speaks about sex during wartime—which is what the Pierre Guyotat is about—in another way. I put them both together as if they were the same text. Doing that uncovered a lot of stuff.

M2: And part of the point of this is...

KA: There really wasn't a "point," at least not in an abstract sense that I was doing this deconstructive activity trying to bring out specific content or ideas. See, that was when I was working intuitively, introducing different materials that just felt right. If I was doing that *now* I could have a theory about what I was doing—I could talk about women's roles, what my mother's suicide was, why I had to stick that next to a war text, why I wouldn't deal with it sentimentally. And what the function was of including that kind of sex, which a lot of feminists would call very sexist—to say the least. Placing those Telweit texts on Nazi fantasies next to the Guyotat text is very interesting from a theoretical standpoint, right? Because according to a certain brand of feminism they're the same text.

EXCESS & BLACKNESS

M2: Let me trace a certain lineage: Sade, Baudelaire, Rimbaud, Lautréamont, Jarry, the Surrealists and Dadaists, Bataille, Artaud, Genet, Burroughs, Johnny Rotten, Patti Smith, Charles Bukowski. Is that pretty much the lineage you see yourself working out of?

KA: If someone tries to place me in *another* lineage, they're mistaken! As to how my work relates to what they were doing, I'd say one thing we all share is a deeply sexual perspective, which insists upon the connections between power and sexuality. There's also the use of language and imagery involved with areas of the mind which are non-rational. It's almost like we all have the same favorite color—black.

M2: That lineage doesn't only share "blackness," but also a

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'postmodern'
on me,
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little shit!**

kind of imaginative *excess*—that desire we were talking about earlier in regard to Kristeva's *Power of Horror* to defy the limits of ordinary perceptions, a shared sense that daily reality is a lie covering up emotions and sexuality. And you focus on the body.

KA: I very much agree that their art was finally always about transcending limits. Certainly Bataille was very much about the opposition between the daily, workaday world and the transgressive or the ecstatic world—and the balance between these worlds. In a sense, Bataille was trying to set up a stable form of transgression, where you can go back and forth. They were all concerned with that idea in one way or another. Which makes for political stances.

M2: Right. It's no accident that Sade is writing *120 Days of Sodom* while he's a prisoner in the Bastille during the French Revolution. What he's writing really is a specific response to the beginning of the rise of industrialism and rationalism.

KA: Absolutely. In a very deep and profound sense, Sade was attacking rationalism. His work is profound partly because its excesses create all those emotional responses that make it impossible to argue about his work successfully. Being an upper-class boy, Sade created a wonderfully diabolical machine for attacking rationalism, especially political rationalism (which is what post-industrialism is) and capitalism. And this machine works so bloody well that nobody can touch it. He never allows you to rest in any meaning. It's not like poetry, where you're *apart* from meaning—you're just not allowed to be comfortable, intellectually, with the meaning he gives you. And, of course, Sade is truly, profoundly, *shocking*.

MEAT PUPPETS

M2: And this demolition includes not only rationalism but our pretensions to spirituality, too. It's like he's using the tools of rationalism to reveal what we *really are*—meat puppets governed by the realities of bodily functions. And by our mortality.

KA: But he takes even the body away, as well. Because the body in his works is always a machine. That's all. And so all his sex is orgy, mathematically arranged, absolutely mechanical. *Love? Emotions?* These have no place in Sade's work. They'd gum up the machinery.

M2: Your own books always return to the site of the body: as a source of power, as a center of struggle for power, as the place we finally exist in, as opposed to our thoughts. Why generally are you so interested in the body?

KA: When reality—the meanings associated with reality—is up for grabs—which is certainly Wittgenstein's main theme and one of the central problems in philosophy and art ever since the end of the nineteenth century—then the body itself becomes the only thing you can return to. You can talk about sexuality as a social phenomenon, so that's up for grabs. You can talk about any intellectual concept and *it* is up for grabs, because anything can mean anything, any thought can lead into another thought and thus be completely perverted—you get to Baudrillard's black hole. But when you get to the actual physical *act* of sexuality, or of bodily disease, there's an undeniable materiality which *isn't* up for grabs. So it's the body which finally can't be touched by all our skepticism and ambiguous systems of belief. The body is the only place where any basis for real values exists anymore. Something like Mishima's *Sun and Steel* is fascinating because he returns again and again to the body.

M2: You've said that you felt at home in the New York Punk scene of the mid-70's. But that scene has pretty much disappeared. Hasn't it been more difficult for you personally and aesthetically, as our culture has become more and more conservative during the last decade? I mean, given the fairly sensationalized way you were presented in England—the Mapplethorpe photos, the association with punk, not to mention your literary reputation—didn't you find it difficult to find some kind of scene where you could feel comfortable?

KA: It's been hell sometimes, all right. I don't know if I'm an unreadable writer, but I'm a pretty difficult writer. If someone had looked at my work a dozen years ago they'd have said, "Oh, she'll never be commercial." Well from a purely practical standpoint, whatever fame I received in England, what that meant for me personally was my books would get published, and would *keep* being published. In other words, it meant survival.

That flamboyancy which led to my fame in England wasn't manufactured by me but by my publisher, Picador. It was reinforced by a few journalists who knew about the punk stuff, which Picador didn't know about. The Mapplethorpe photos certainly helped a great deal. All that made it possible for me survive, which I'm grateful for, because it let me do what I want. But from a personal standpoint my image as this flamboyant punk figure has mainly just been a bloody nuisance.

M2: Is there a niche or scene that you're comfortable in today? I'm asking this partially because of *The Empire of the Senseless*, which I felt was very much a book about trying to find a niche or a myth

to live by. I was wondering particularly about the tattoo or body-building milieu which has a pretty strong sense of community. I suspect that even in the usual art scene, you'd wind up feeling a bit like everybody is gawking at your tattoos. Or they wouldn't be able to relate to the body-building thing.

KA: My problem isn't so much being stared at as of finding who to hang out with. All my old art friends either went dead or rich! [laughs] I certainly do feel comfortable in that milieu of body builders and tattoo people. But I always needed to be able to move a lot, so I like to have at least five milieus that I can go back and forth to. So it's not like the bodybuilding scene, say, is my only thing these days. Bodybuilding, of course, also concerns my work, because it's work with the body. I like the atmosphere when I'm hanging out at the gym. There's an almost zen-like focus people have that's kind of pleasurably stupid, mindless. You find the same thing with tattooists and motorcyclists. To my mind these are still the outlaw factions. And I like that feeling.

M2: Another outlaw faction is the drug scene that drew earlier generations of artists—the Beats, Burroughs, the 60's rock scene, punk—for some of the same reasons you're talking about.

KA: Yes, but even though I have a taste for low life, I've never been attracted to the drug world—and only slightly to the sex world. I'm more the loner, outlaw type. James Dean, hanging out. There's a bit of genuine Americana for you: James Dean types.

M2: Even though your work deals with sex a lot, its effect rarely seems erotic to me. Are you at all interested in turning your readers on?

KA: You never know what might turn some people on, but mostly I can't see how people would get aroused by the sex I'm describing in my books...

But my general view is erotic or sexual. I think I share this with writers I feel I'm working out of—Genet, Sade, Rimbaud, Bataille. I agree with what a friend of mine, Simon Watney, said: "There are those people who think that sexuality deeply determines their identity." Since I'm very much interested in this issue of identity—both the textual and personal aspects of it—I've had a constant concern with sex and power, how they join and reinforce each other. As a woman, but also just as a person looking around at the way things operate, it's hard for me *not* to be concerned with these things.

M2: You say somewhere that "My father is not my real father"—the implication being that the basic problem women have isn't necessarily with men, per se. That the "real father" isn't necessarily the awful, power-wielding tyrant who keeps fucking over (and fucking) your women characters. It's an anti-essentialist view—that, again, I suspect gets you into trouble with some feminists...

KA: I don't think the problem is with men. Take Cixous's argument against Kristeva, with Cixous saying that our problems all have their source in genital difference—so the fact that men have cocks is what makes them evil. This being so, the only thing to do is escape from men. She's a separatist and Dworkin's position is the same basic thing. Kristeva's argument that the real problem has to do with role models makes a lot more sense to me. This may not be a politically correct thing to say, but I like men. I don't have any problem with guys. But I have a lot of problems with society. **M2**

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ELLEN SEBASTIAN

Interviewed by Barbara Imhoff and Jude Milhon

Ellen Sebastian's Sanctified Church, a passionate celebration of the life and work of Zora Neale Hurston, induced religious ecstasies and shouting outrage in its audience. This was melting-pot melt-down, juxtaposing documentary anthropology with actual ritual and setting southern gospel Christianity against southern traditionalist Voudoun. Local voodoo practitioners sang along with the houngan onstage. Indignant Christians harangued against devil worship. Even those with no faith to defend were inflamed. This was no tour-bus Rain Dance.

The shrine in the anteroom was a visual and olfactory initiation: High John the Conqueror root and Florida Water, Catholic icons, shells, beads, tin talismans, cigar-ends and very old matchboxes. On the floor around were the *vèvèrs*, the complex white-powder-line schematics that invited the Loas. Zora—recorded by that lucky tech back in the twenties—sang to us in the foyer. And Zora spoke to us onstage, through the priestess Luisah Teisch. As the ritual mounted, we progressed from witnesses to participants to celebrants. This was assuredly a case of mass possession.

"Oh look! Guedé got him!" The people behind me are shrieking, laughing, poking at each other. They recognize the Loa—the god—who is taking possession, preparing to mount. And they understand His "horse's" blind-eyed stumble—this young white sound technician is done for. An awed whisper: "They're really doing it. I have to keep telling myself this is just a play." Me too! On the second night I can sing along with the invocations. I want to sign right up.

DOING THE LAUNDRY WITH A SENSE OF CONSCIOUSNESS

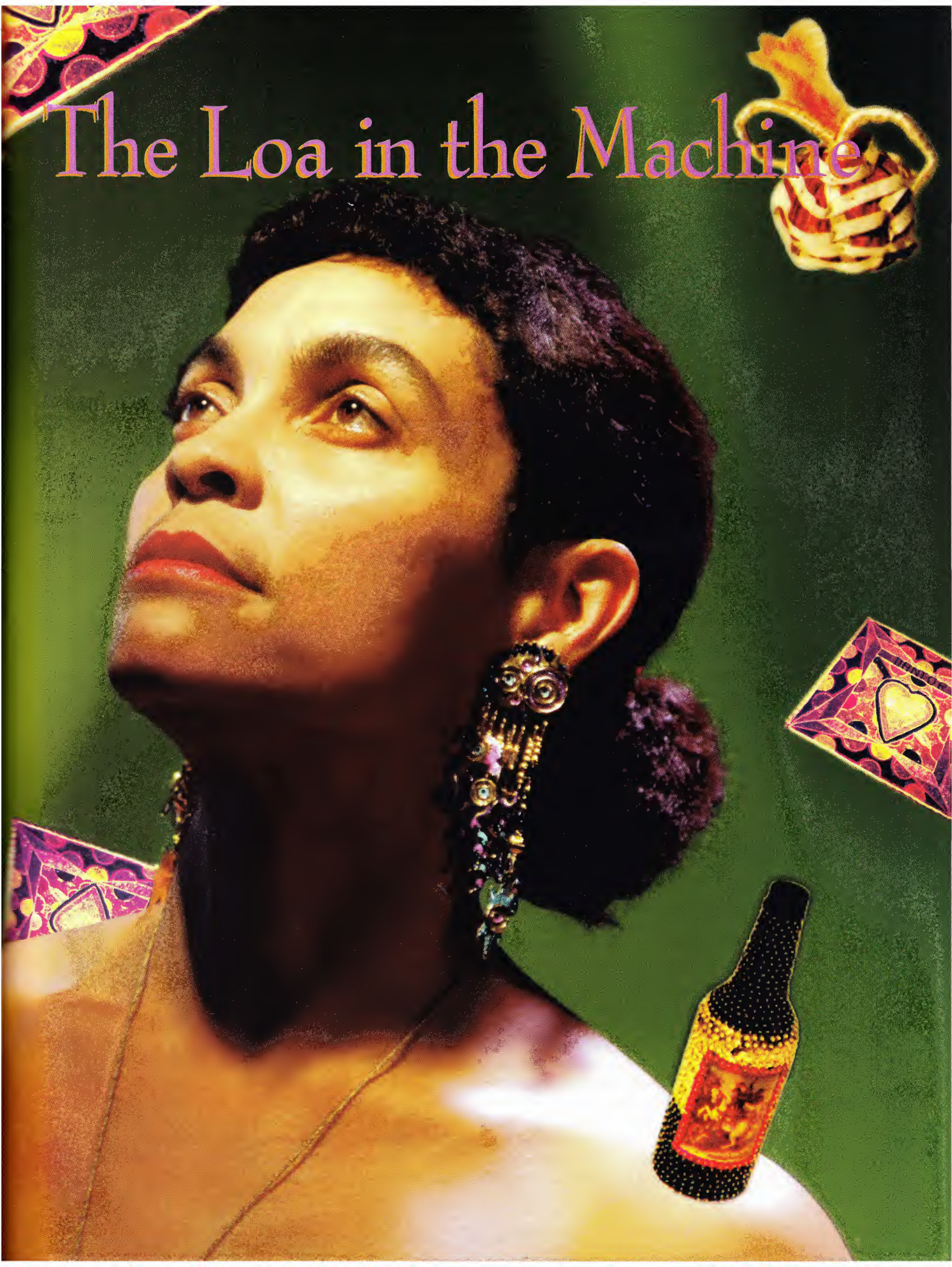
MONDO 2000: What has changed with the second version of *Sanctified*?

ELLEN SEBASTIAN: For me what came about was getting settled with death, with my own death.

I had some interesting dreams during that period. I left my last apartment 'cause I got a little scared, 'cause the doors were always unlocking. Luisah came over here and she did this spiritual cleaning of the new house. A few days later I sit up in bed and blood starts going straight up

PHOTO DOO-DAD: BART NAGEL

The Loa in the Machine



They thought I was a fuckin' witch. I'm not a witch, I'm just listening. Voodoo is about listening

the walls. I shoot right through the walls of the apartment—I'm moving so fast that my body's shakin'. Standing there is a taxicab and a skeleton in a long black coat asking me to get in. I just got right into his face. Now, Shango is the god of war and death—you have to go up on your tip-toes to pay homage. And in this dream I stood up on my tip-toes and I screamed, "I am Shango. I am not afraid of you." And I grabbed the skeleton and I pulled it *into* me. And then I called Luisah up, crying—I asked her what's going on. And she said, "Oh Mamé, you just had a powerful visit by Shango." She said, "You're comin' to terms with your own death."

The play became something to show people there's a way to walk into death with dignity, walk through the door of death and not be afraid. That voodoo will bring you back to keep imparting wisdom, to keep the wisdom going. Oh, I tell you there would be nights when I would watch that show and I would just *cry*. I would sit under the risers—'cause I wouldn't sit in the audience—I'd watch the show in between people's feet. And I would cry because I felt, here was a sort of blessed sanctified space, if you allow yourself to experience it—real sanctified space.

M2: You've said that magic is always there, you just have to be aware of it.

ES: It's always being awake to those little things. Like how I got the book, *Face*. I had done a play called *Mosquito Man*. I got a letter in the mail from a woman named Cécile Piñeda. She wrote this letter to the Chronicle saying, I've seen this woman's work and she is an artist that deserves respect. This letter made me cry, made me feel good on a really hard day.

That day I do laundry, and I decide to pick up a book to read, so I find this book, *Face*. I didn't even look at who wrote it. I'm

halfway through and I go, "Damn, this book is great. Who wrote this book?" It's this Cécile Piñeda! So I write to her. I meet this woman and it turns out she quit theater years ago. I invited her to the reading back in June of this year and I was a nervous wreck. She stood up after the reading and she said, "It's much more than I ever would have imagined it could be."

So it's doing the laundry with a sense of consciousness that makes your life move forward.

I grew up in a household where my grandmother told dreams, and yet she's a Christian, very religious and very practical. So she was contradictory. This is a woman that, if you swept her feet with a broom, she would take it in her hands and spit on it. That's voodoo. Someone sweeps your feet...

M2: They're sweeping you up.

ES: They have power over you. And by putting your spit on that broom, you're releasing yourself. That's understanding your energy going out into space. This is the kind of stuff I grew up on.

At *Sanctified*, there was this woman who was 80 years old—a stately black woman with a little black cape. And she says, "Whose play is this?" She looked at me and she grabbed my face and kissed me on the lips. I felt like it was one of those Mafia kisses, it was so intense. And then she took my hand and she slapped my hand. She said, "How do you know all that? You are just a baby." She said, "I'm proud of you. This stuff is disappearing—who told you that stuff?"

Some of it's just childhood memories of things my grandmother did. Zora Neale Hurston and my grandmother would never say these things are voodoo, because they're Christians. But the voodoo is still there. That's what gives these people freedom, real freedom of their spirits and souls. The voodoo is ancestral, it's so powerful, it's so ancient.

THE COMPUTER AS A GOVI: SPIRIT JARS OF INTELLIGENCE

M2: I just read *Mumbo Jumbo*, where Ishmael Reed talks about this body of living knowledge: it still exists, it's in the culture, it's shared. And this is living religion even though it's not acknowledged.

He talks about spirits invading the dictaphone, spirits invading the radio. It's the Loa in the Machine. And he says that what this black culture is bringing to America is the living force of magic. And this is going to permeate, going to change everything.

ES: That's right... And I think that that is already happening, that there is more of an open acknowledgement now that candomblé, santería and voodoo and certain African religions are being practiced quite heavily in America right now—more than ever—and people are turning to them. I see a connection with that and the rise in white people's culture of AA movements, of the need to go in front of groups and confess in front of strangers and say, "I'm an alcoholic, I overeat, I overspend." Because it's this thing of community and truth-telling—being able to know that telling the truth is a sense of freedom.

Also to me computer networks are a way white people anonymously share information because I really feel that in white culture there's this fear of being connected to your truth. That's why it's *Alcoholics Anonymous*. You have no last name. And when you're on the Well or in your network, you're exchanging information, but you have no body, and no one knows if you're fat or old—they don't even need to know your gender, and there's a freedom in that. That is what voodoo and the ceremonies of candomblé and all those things are about, is about networking energy. Computers allow you to be anonymous, and voodoo in a certain

way allows you to be anonymous, because once you become possessed, your ego, *you*, are gone. And yet you're this powerful speaker, and everyone is energized by the information. So in my experience, when the truth is told, be it through a work of art or just an honest exchange between two people on the streets, it's more than just words. Two people see something in the same way and they connect. It's a powerful exchange of energy.

You know, people have thought I was a fuckin' witch. I'm not a witch, I'm just listening. Voudoun is about listening.

M2: People behind me in the audience at Sanctified Church were whispering, "They're really doing it!" When the technician got possessed, they recognized the Loa—they were laughing, "Look, Guedé got him..."

ES: A lot of people came up to me and asked, "How did you get them to be possessed?" Part of it was the power of Luisah Teisch—'cause Luisah Teisch is a practicing priestess. When I cast her in the part I said, "I'm casting you to channel that spirit, because that's what you do anyway." I actually love that she's not an *actress* actress—'cause she's like a queen. She would hold court every night in her dressing room. She would be stripped down to just her panties—here she is in this full body just sitting getting her hair done, telling stories about New Orleans. She'd just put this robe on, then she'd get her cigar and her burning coconut and she'd be going through the theater blessing things. She said, "We have to not anger the Loas, 'cause the electricity in the theater can go out," she says, "Things will happen."

And I just said to her, "Do whatever you need to do," because I know not to play with this—it's natural phenomena that you are playing with. Voudoun is just understanding the balance of nature.

M2: Yeah, it's a dynamic system of garnering and using information. And what I think is really interesting about the idea of voudoun and cyberspace, making this jump, is that if we're going to be creating universes, we have to honor these systems. Voudoun is an inherited wise system that can be applicable to any universe. And I really like it as a paradigm for cyberspace.

ES: When I read *Mona Lisa Overdrive*, with its connections with Erzulie and Damballah, I thought, "Finally someone is making this connection."

What voudoun is based on is, there's these two properties: the material world, and the world of the spirit or psyche. And that psyche has an intelligence, a consciousness. And when you drop the physical body, which is a temporary thing, that energy still exists. Every spirit needs a place. And so in voudoun they have Govis. The women have those huge baskets on their heads that are Govis—spirit jars.

M2: Spirits need organs, in effect, right?

ES: Right. Marvin Minsky's talking about downloading consciousness, figure out how my mind works and I can put that into a computer. Basically he is talking about a way that a computer becomes a Govi, a spirit jar of intelligence. Except what scares me about him is that sometimes I feel from him a kind of contempt for the body. And in voudoun I never feel that.

Voudoun respects the body even though it's temporary. There's a respect for the sexuality of the body, for the beauty of the body. Because that is our temple: that's why the Loas love it. When you are doing a ritual for Erzulie, she wants perfume, she wants champagne, a beautiful dress, the beautiful bed. Because once she comes, she wants to lie down, she wants to feel the cloth, drink a little champagne. What it says is that when the spirit does manifest itself, the material becomes divine.

So with a computer. When people talk about their fear of technology, I go, "The computer is an extension of my divinity, of my intelligence,

that's all." And I feel that's what William Gibson is onto a little bit—that in cyberspace there's going to be these personalities, these spirits that are gonna battle for it. That's what the myth is about.

I become a Loa and I need to speak. Then the struggle comes between the spirit of Barbara and the spirit of Ellen and I have to displace Barbara for a moment so I can speak. Nobody, even the priest, just openly gives over to possession. It's a frightening, frightening experience. Luisah at one of her rituals—she was crawling and gasping and salivating. When the Loa wants to mount you, your ego is going: no, this is like dying!

YOU CAN'T BULLSHIT THE GIVE MAN

M2: I was thinking about how anywhere that we project ourselves, our psyches, the Loas will exist. So cyberspace would always be inhabited. We can't exist without the Loas and we can't have our existence without the Loas existing. If we don't have access to the godhead we don't exist anymore. So *they* are our access—and they are our protection from it.

ES: Yeah, and what people don't understand about voudoun is Damballah and Erzulie and all these *gods*. What's a god? Jesus Christ to me is a symbol of voudoun.

M2: Because he represents possession.

ES: Right. Jesus walked on the earth and his spirit became divine. I think that that's true of all of us, some more than others. In fact, if you have a particular wisdom that people are in touch with, you can, over a series of steps, become a Loa. Zora Neale Hurston for me is on her way to becoming a Loa. Luisah believed it too, enough that she would go to this place and Zora would speak through her.

When I talk to actors as a director I say, "You have to become possessed." You have to

I felt like it was one of those Mafia kisses, it was so intense

We have to not anger the Loas, 'cause the electricity in the theater can go out

let your ego go, that's what makes a brilliant performer. You are the horse that's being ridden, and everybody benefits from that. What I love about voodoo is that it eradicates the ego. And that's what makes me worry about Marvin Minsky and artificial intelligence, because he's not quite there to eradicate, in his case, his white male ego.

M2: What he wants to do instead is preserve it.

ES: Yeah. And I go, no, Minsky, you got it wrong: what you need to download is the freedom of that intelligence and that information. You need to get rid of your ego, because otherwise you're working with the *dark* side of voodoo. And you pay a dear price for it.

M2: For personal power.

ES: Yeah. For your personal power you will lose everything that you love. Zora Neale Hurston tells this story of meeting with a Bokor. The Bokor are the ones that practice the dark magic. There's a ritual called Give Man. You go to the Bokor and say, "I really want to be mayor of the city." He gives you a demon box and every year a demon is gonna come to take one of your most loved possessions from you. And you can't bullshit the Give Man.

So you can't kid yourself. You're saying you want this more than the clarity of that freedom of love and spirit.

M2: Faust's choice. By the way, do you know that Faust means fist in German? Gimme. The grabbing ego.

ES: That's interesting. In *Face*, Lula—this innocent woman who gets raped by the man who's been disfigured—she grabs his hand and says, "Make a fist." And then she takes a white ribbon out of her hair and she drops it on his hand and the ribbon falls off, of course. She

says, "See? Nothing falls into a closed fist. Everything falls into an open hand."

POWER PLAYS

M2: In voodoo you can achieve your goals, but the sense of your community is always in place. You go through the appropriate channels, you always give thanks for what you get, you give back what you get.

ES: Right. Because if you pray for rain it rains on everybody's farm—you accept the fact that everybody's gonna benefit. For me real empowerment should come from the culture of knowing that everyone has power. If my power is based on your not having power, then all I'm trying to do is have control. Real power, you absolutely have no control. I think that's what we're going through with the war: we're seeing again a sort of psychic breakdown, not knowing the difference between power and control.

M2: When you do that with information, make information sacred, you endow it with...

ES: That's a good word for it: endowment. Because endowment is a form of gift.

In *Sanctified Church*, we said in fact, yeah, the microphone that records the voice is a kind of sanctified technology. Ken picked up this record and said, "Oh, so by recording you, I've put the Loa here and I've sanctified you? Then this is my mirror, this is my spirituality."

I do think that that's why so many of us as women or people of color get up in arms, we say all we want is the technology to impart *our* knowledge and information. That's why I think rap music becomes such a threat to people—it's whether you want to or not, you're gonna hear my voice and it's gonna become a part of you.

M2: Does *Face* deal with this kind of takeover, this sort of possession?

ES: *Face* is a play about a man falling and then empowering himself to recreate himself. Exactly ten years ago in 1981 a man committed suicide by jumping out of a building and landing in front of me, falling and dying. So ten years later I'm making a play about a man falling. I had to take note of that.

I went back to the place where the guy died, on Geary street. I witnessed something there alone with this person, this stranger—there were three intersections of energy that crossed there: the earth, this man and me. And it changed an aspect of my life.

A play about a man seems very timely for me. I get excited about where we're at in our world right now—we can be touched, allow ourselves to become possessed with other forms of sexuality or possessed with African culture or Native American culture. You give up your notions, your ego, to say, what does this *man* feel like? We grew up in a hard-core feminist age: "Oh, everything is so fucked up because of men." Right? We are at a time where we have to move past that.

I'm looking to walk in the shoes of someone else, so if someone says to me, "I don't understand how someone could kill someone," I can go, "Oh I do. I absolutely understand it." And I can understand the rage of this character in my play. I hate him because he raped his girlfriend, but I can absolutely understand why he did it—that this is the way he inflicts power. And by understanding it, I can say, *this is why I don't need to do it and this is why you can stop.*

I think the only way we're gonna evolve is to make the

connections and to—using Barbara's word—endow certain choices with power.

M2: In *Sanctified*, when you created the voodoo rite on stage people got upset.

ES: Even within the cast there were people who were just hardcore: "I believe in God, this is devil stuff." And people make up these things about cannibalism. Well, look at religious metaphors—eat the body of Christ?!

Originally, when we were in rehearsal, we had live chickens, and some snakes. When we did previews of *Sanctified* there were animal rights people, or vegetarians, who couldn't stand the idea of animal sacrifice.

M2: Spilling blood cuts through; it confronts people with the living reality of death.

ES: And voodoo is about the living gods. To spill blood is an acknowledgment of the life cycle. And rituals around the animals in voodoo are about feeding, that the gods need to be fed. Blood is energy, it's the life force. So blood is dripped into the earth. There's the *poteau mitan*, the pillar which is a sort of lightning rod to the energy of the gods. And the *vèvers*, which are the symbols of the different Loas that you're trying to invoke. Pouring blood into those is a way of causing the energy to focus.

WE ARE EVERYWHERE

M2: I understand there are voodoo congregations here in the Bay Area.

ES: There are, but voodoo is something that you can practice alone. You have your personal Loa, you have your symbols and icons and ritual objects that are just yours—no one else should see them, no one else should touch them. There are certain objects that I carry with me all the time—they have been blessed in a certain way, and they ground me.

It doesn't mean I have some root in my pocket that will make people give me what I want. No. All it means is that I have my power with me at all times. Nobody can take my power away from me. I can just pull down my sock and look at my Damballah.

M2: How do you go about finding a congregation?

ES: Now, most people want to know what my tattoo is, but some people look at me and I know they know. And so I just say to you, if you're interested in being transformed that way, the people will find you and you will find them. You go to little churches and pie socials, places that are just serving fried chicken on a Sunday afternoon and next thing you know you're at somebody's house and then there's a few more women there and everybody's in white and blah-blah-blah. And if you're sincere, you have to be willing to go through the process. And it takes years: magic *takes* years. And I say just keep to your timing and keep listening and it's gonna all come **M2**

The Sanctified opens in a newly refashioned version this summer at San Francisco's Fort Mason Center.

Ms. Sebastian is a writer/director who co-founded Life on the Water, a 250-seat theater devoted to producing intelligent and passionate live performance. She has worked with the Blake Street Hawkeyes, George Coates, and the Bay Area Playwrights Festival. From 1982-86 she created and directed plays for her own company, T.E.L.E. Productions. She has directed solo performers Whoopi Goldberg (Moms Mabley), Leonard Pitt (Spleenix and Ned), and Bill Talen (The Shape). The Sanctified Church, co-authored with Marilyn Waterman, was her ceremonial tribute to the life and work of folklorist Zora Neale Hurston. It originally premiered in 1986 at Life on the Water. Her most recent production, Face, was co-commissioned by Theatre Artaud and Life on the Water in SF, the Wexner in Columbus, Ohio, and The Brooklyn Academy of Music. No Trace of the Blonde, a collaboration with New York writer/performer Holly Hughes, will begin production in 1992.

SUBROSA

R E P O R T



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A Couple of

Bohos

Shooting the Breeze

*William S. Burroughs
and Timothy Leary
in Conversation*

Both in their seventies now, they are starting to resemble each other. And not just in looks and dress, but in personal style. Tim's humor gets blacker and more corrosive as Burroughs grows more mellow and compassionate.

We got the two of them together briefly at William's place in Lawrence, Kansas. Tim was in town to debate G. Gordon Liddy. He came supplied with a list of "weighty topics," supplied by Yours Truly. But the questions went out the window, and what we have here is a couple of old friends talking.

Hey! Read the books. Read The Western Lands. Read Flashbacks. They've already done as much as any other pair in the Western world to map out how to mutate in freedom—enough for the next several decades. So kick back and relax...

R. U. Sirius

LIFE'S A BITCH AND THEN THEY FREEZE YOUR HEAD

WB: Well, let's have a look at this thing. [William looks at topic list—such weighty subjects as "immortality; post-biological possibilities e.g. Drexler, Moravec; Wm's visit to Biosphere; comments on language and Foucault; opinions about VR; Kronenberg's plans for Naked Lunch, etc.]

TL: Do you want to do this, William?

WB: Why not?

TL: The first topic is immortality. You know, I signed up for cryonics. Have you thought about cryonics?

WB: Ah... I thought about it but no, no, no. I feel that any sort of physical immortality is going in the wrong direction. It's a question of separating whatever you choose to call it—the soul—from the body, not perpetuating the body in any way. I think any perpetuation of the body is a step in the wrong direction. The Egyptians made their mummies, and preservation of the mummy was essential to their immortality. I think you want to get away from the body, not get into it.

TL: Why not have the option of readily jumping consciousness back into the body? You know, the Egyptians are really interesting. I see the tombs basically as re-animation capsules.

WB: That's exactly...

TL: They used the highest science at the time. I've been working with some scientists in this new field called bioanthropology. During twenty-five centuries there were four waves of tomb robbers. The first wave took the gold, the second wave took the art and then came the British and the French. All these looters threw the wrappings—which were clotted with dried blood—into the corner. But now microbiologists can get DNA from the bio-remains. So the Egyptian plan has actually worked. Within ten years we'll be able to clone the pharaohs! Of course, the problem is, there would be no memories. But that's why they included their software in the form of the jewels and artifacts. I admire that. Your book on *The Western Lands* fascinated me. I read it over and over again, and I quote you quite a bit in the stuff I write about cryonics.

How about post-biologic possibilities? Moravec—all of that. He says you can download the human brain and fit it in computers and build a new body with brush-like antenna software...

WB: Certainly, certainly.

TL: How about language as a virus, Michel Foucault?

WB: Language is obviously a virus, as it depends on replication. What other weighty topics do we have?

LIDDY, GUNS AND MONEY

TL: William's paintings, shotgun and otherwise... of course, Brion Gyson was always the one doing the painting.

WB: You see, I could never have started painting *really* until after Brion was dead. I could never have competed with him. But now I've made more money than he did his whole life.

TL: You've made probably more money from your paintings than from your books, huh?

WB: It's pulled me out of a financial hole. I can buy flintlock pistols.

I want to have a full shamanic ceremony for the banishment of all my evil spirits

TL: Good for you. It's an easier way to make money than running around giving lectures and debating G. Gordon Liddy.

WB: Flintlock pistols are great. I got a flintlock and a replica of the old gun, 7 1/2-inch barrel, .45 caliber. And I'm getting another...

TL: And what do you think about Liddy? You know Liddy's a big gun man.

WB: Yes, I know. I know as much about guns as he does.

WORKS-A-MATIC

WB: Oh, now listen. Just a couple of tips. In the first place, something that nobody has gone into, in this whole drug debate, is the simple fact that before the Harrison Narcotics Act in 1914, these drugs were sold across the counter.

TL: Opium, cocaine?

WB: Opium, cocaine, morphine, heroin. Sold over the counter. Well, these were in the days that the conservatives evoke as "the good old days." Was America floundering? Of course it wasn't. And how well the English system worked, until the American Brain commission came over there and talked them out of it. When I was there in 1967 and took the apomorphine cure with Dr. Dent, there were about six hundred addicts in the U.K., all registered and all known because they could obtain their heroin quite legally—cocaine too. Now that they've made it impossible, and the doctors won't prescribe to addicts, God knows how many addicts we have. God knows how many narcotics *agents*.

TL: First time I ever took heroin was in London with R.D. Laing. Ronnie sent out to the chemist. Ronnie Laing shot me up in the house of Alex Trocchi. Remember Alex Trocchi?

JAMES GRAUERHOLTZ: Sure.

WB: Knew him well.

TL: I thought that was an elegant way to get introduced to heroin.

JG: Very elegant. Alex Trocchi... one of the *great* junkies.

TL: Switzerland is interesting. They have parks in Zurich and other places where junkies can go. The attitude is humanistic. "We're one family, we're all Swiss. And if our junkies want to shoot up, we'll provide clean needles." There's no criminality involved.

WB: I remember at one point I was at one of these Dutch places where they had needles and works—you put a coin in a thing and out came the needle.

JG: Works-o-matic.

WB: Works-o-matic!

TL: A friend of mine is a former football star who has always been a hippy and a druggie and all that. He had terrible problems with his ankle about a year ago. He was in the hospital for a horrendous operation. I drove about two hours to get down to visit him in the hospital. He had something that made me think of you, William. He had a thing in his arm and anytime he felt pain, anytime he wanted, he would hit a thing and it'd go >bink<.

WB: Do what?

TL: He had a needle thing, with morphine.

JG: A permanent IV?

TL: Yeah. You know what they call that?

JG: PCA. Patient-Controlled Analgesic.

TL: Yeah, that's it!

JG: Yes. I had it. I had like a porter's bell, and I'd just reach over and push the button, and a minute later I'd feel it.

TL: So I noticed it as I was talking to him. He told me a story. He said, "You see my blonde nurse there, she comes over and says, 'I'm a fan of yours and I want to give you a real good massage.' I said, 'Is the door locked?' and she said, 'I already locked it.'" And as he told me the story there'd be a pause and >bink< !

I met him about two weeks later and said "You know, it was a good time, visiting you in the hospital." He said, "You didn't visit me in the hospital." [laughs] I said "Fuck off. It took me four hours driving through traffic." He forgot he told me all those lies about fucking the nurse, sitting there going >bink< >bink< >bink<

THE IMMACULATE INFECTION

WB: So what is this debate about?

TL: Well, Liddy and I disagree about everything. He's a total authoritarian, militant person.

WB: Look at the history, the fact that for years there was *no* British heroin problem—don't know how many addicts there were—and that the English system worked very well.

TL: Well the problem is the Puritan, Cromwellian, New England moralists who have imposed their fucking neuroses on America for the last hundred years. Any sort of pleasure, or sort of idea that the individual has a right to pursue happiness and they're after you. It's basically Inquisitional... religious. I blame the Puritans.

WB: Well, perhaps, yes. But the thing is... I don't quite agree with that: the basic thing is how that creates a desire, a necessity in their minds to control the whole population. And the extent to which the general public has been stupidized is appalling.

Have you heard these statistics? The polls show that one-half of the high school graduates could not locate Vietnam on the map and did not know that we had fought and lost a war there? When you take WWII, forget it! They never heard of Churchill, couldn't locate France. The only one they knew about was Hitler.

TL: Costumes! He had the best wardrobe, that's why.

WB: And 8% couldn't locate the United States on a map. It's absolutely appalling. Now listen to this one. One-half the people—this is a sex survey—thought anal intercourse could result in AIDS *even though neither one of the participants was infected*

with the AIDS virus. The Immaculate Conception!

TL: The Immaculate Infection!

WB: Can you imagine such nonsense? Such a complete lack of logic. One half!

ALIENS AMONGST US

WB: I was talking with Whitley Strieber—you know, he's the one who wrote the book *Communion*, about the alien visitors...

TL: Oh yeah, right. Is he the guy you went to visit?

WB: Yes. He's been down to Washington and he says they all know about this and are scared to death of it. They're following the tried-and-true bureaucratic dictum that if you don't know what to do, then don't do anything. They're terrified of the whole subject. But they were saying to him, "Well, good God—with such a stupid population, such a mentality, if we let this out, what's going to happen? Aliens amongst us?! Why, they could take the form of your mother!"

TL: Oh, my God! [laughs]... your lover!

WB: "...With this mentality, we'd have a massacre." But there's no question in my mind of the reality of these phenomena. He's telling the truth.

JG: William, tell Timothy about Bill Lyon and the sweatlodge.

WB: Well, the shamans really *can* just call up the spirits. So I was very anxious to contact them. I did sit in on one sweatlodge ceremony. It was too much for me. The combination of heat and confinement. Fortunately I was right by the door. I had to leave.

TL: You became uncomfortable?

WB: More than uncomfortable. It was like an oven.

JG: But you'll do it again.

WB: I will do it again, but I want it toned down. That was a very hot one. If they would tone it down about 30%...

TL: ...Or slow it down. You'll adapt and get used to it.

WB: Depends on how many stones. These big white-hot stones are put in the middle, and they pour water over them. Yes, I want to have a full ceremony for the banishment of all my evil spirits.

"THE OLD WRITER LIVED IN A BOXCAR"

JG: Coming to the Liddy-Leary debate with us, Bill?

WB: I'm not going.

JG: Afterwards they'll take Tim to the hotel. I'll bring you to your car and immediately to the hotel for the party. And you'll hear all about the shaman, because the host of the party is the guy that brought the shaman to William.

TL: This is a party that I'm going to?

JG: Yeah. Yeah. Very nice guy.

WB: I used to live out where he lives now when I first came to town... in the stone house.

JG: You'll find it in *The Western Lands*: "The old writer..."

TL: I remember that. Sure.

JG: "The old writer lived in a boxcar..."

TL: I remember that so well. I put it in a book.

JG: That's right. William, it tears me up to break up this party.

TL: I want to say one more thing, William. You're with me every day. I talk about you all the time. I've learned so much from you, with you. And I'll be back.

WB: And I think about you. 





Digital Underground is the million-selling rap group that hit the charts last year with "The Humpty Dance," a sleazy, ridiculous send-up of dance songs that featured "Humpty Hump," a wacky, grinning and ever-so-tacky rapper with a game-show host persona and a big, plastic nose.

"all right now stop what you're doin' / cause I'm about to ruin / the image and the style that you're used to / I look funny / but yo! I'm makin' money see / so yo! world I hope you're ready for me."

—Humpty Hump from "The Humpty Dance"

What is ironic about the group is that their media persona is not only a product of deliberate hype, but it is not even the image they designed for themselves. Their record label was so taken with their first hit "Doowhutchyalike," the album was delayed six months while "The Humpty Dance" was added to the album.

Last spring the Underground finally released their album "Sex Packets," a silly-serious dribbling confabulation of beats, rhymes, hype, concept and old-school FONK that dabbles in every style of rap known, and a few never before heard.

The Digital Underground interviewed by Rickey Vincent

"We specialize in triple-dope super-stupid cold-ignorant underground hip-hop HUMPTY-FUNK, and since we're the only ones doin' it, we've got nothin' else to do but keep risin' to the top."

—Humpty at the 1990 MTV awards.

The group plays mind games with invisible characters, mock press releases, and outright insubordinate samples of artists such as Jimi Hendrix, Miles Davis, and Kraftwerk. But that's just their tease, because the

group pays direct and explicit tribute to the George Clinton-Parliament-Funkadelic mothership P. Funk Thang at every turn.

The album concept "Sex Packets," in many ways a tribute to Clinton's "Placebo Syndrome — the bigger the headache, the bigger the pill," deals with pills that provide a simulated sexual experience.

"...bio-chemically compacted sexual affection / Here, take a look at my selection"
—"The Packet Man"

Sex Packets are pills that provide a sexual encounter for the user, with whomever is on the label of the packet. There are many varieties of Sex Packets, from generic fetishes to high-profile celebrities, depending on one's taste and budget. According to one mock press release, these packets were designed for astronauts on long space flights, citing the heightened productivity following the release of sexual tension. The packets were then smuggled from government laboratories and now are being dealt on the black market. On their song "Packet Man" the group spells out the proper methods of Sex Packet ingestion—"Now let me tell you how to take it/you either sit or lie down/and you really should be naked/otherwise

you're gonna mess up your clothes/know what I mean/this is more than just a dream/these are very realistic and they're gonna blow your mind/so be careful, only take one at a time."

Another pamphlet titled "The Bay Area Community Health and Drug Report" (with a California seal, no less!) warned against the perils of "Packet mixing." Said the Packet "Inventor," Dr. Edward Earl Cook, of the Lockhead Future Science Development Project: "Packet-mixing has been known to induce fever and vomiting, and one should contact a physician immediately if these symptoms occur."

The group's promotion people spread the word of a Sex Packet crisis on the streets of Oakland, with Packets replacing crack as the addiction of choice. The hype was so thorough it prompted Oakland Tribune columnist Martin Snapp to call Tommy Boy records and expose the hoax.

The album sold nearly 2 million copies. Thanks to lots of MTV airplay, and a wild and loose world tour with such rap masters as EPMD, Big Daddy Kane, Queen Latifah, and Public Enemy, D.U. is at the top of their craft... and just getting warmed up.

The group has released an EP which features two songs from the Dan Ackroyd movie, "Nothing but Trouble," one of which is their latest single, "Same Song." The EP features a couple of remixes, and one peculiar tune in which two characters, the two lead rappers, Humpty and Shock

FREAKS OF THE INDUSTRY



When I first met Dr. Cook he was making "young black teenager" packets because they had the most sexual essence to them

G, are heard arguing over the roots of funk. (No one would guess that these characters are actually the same person, would they?)

Now the group is working on a number of spinoff projects, Raw Fusion, and The Force One Network, as well as another album.

The Uhuru Maggot, resident P. Funk scribe of the Bay Area, caught up with Shock G and Humpty working on some new material at their headquarters deep in the East Bay hills.

The Maggot dropped this interview on me, and I tried to make heads of it. Shock G is the spokesperson for the group, and Humpty, who claims to be his cousin, was in & out, always on the phone with someone apparently female. Both characters drifted freely from truth to fantasy, which apparently is what the hype of their business is all about.

—Rickey Vincent

MONDO 2000: How did you get involved with Sex Packets?

SHOCK G: Dr. Cook, when I met him, he was trying to put Sex Packets into large distribution. He was trying to get with some underground laboratory and do somethin' with it, so I came through and told him it would be a *dope* concept for an album—you can get the idea out that way and then we can further pursue the distribution later. This is what he was saving his money to do when I met him. This is how deep this mothafucka is, you know what I'm sayin'?

One of the concepts to the Sex Packets was, "Wouldn't this be a great safe-sex device?" An anti-AIDS type thang. If this was really happening, this would be the drug of the 90's, because if you meet people, you know, you don't actually have to go home with the person, you just say "May I exchange packets with you?" If she said "OK, you can go home and check it out"—you know what I'm

sayin'? If you drop the person's packet, you can say, "Yeah, it's cool, I wanna get with you" or, "No, I don't wanna get with you."

M2: It's like giving them your phone number.

G: Yeah, you just exchange packets and you go through the experience with them, and being that it has the power, having that particular person's essence in each particular packet, it's the only thing safer than using your hand.

When I first met Dr. Cook, he was making unknown people packets, he was making "young black teenager" packets, I think, because they had the most sexual essence to them. The street packets of unknowns, they just satisfy a category of race or sex or size or height, whatever somebody might want, like, "I just want a fat white bitch"—blam, there you are. But in the case of a celebrity, where there's just the one, it costs more.

If you was to have your own packet made, that would be real expensive, you see what I'm sayin', because you would have to get your essence drained and all that, to have your supply of your own packets. It would be much cheaper to just go to the average packet dealer on the street and say, "Hmm, let me try this big-titty bitch right here, 'cause she reminds me of Tina Turner—I always wanted to do her."

M2: Did you make the connections to George Clinton's Placebo Syndrome concept?

G: I don't know, it could've been subconsciously—you would have to ask Dr. Cook. But, oh man, the bigger the headache, the bigger the pill—that concept I never understood, past the fact that if you keep fuckin' with George you're gonna need more of him.

"When you're takin' every kind of pill, nothing will ever cure your ill," you know what I'm sayin'? I think that was really an anti-drug thang, where Sex Packets was pure fantasy. There wasn't ever really any subliminal concept laid in there. It was a wouldn't-this-be-fun, a fairy tale, so there was no ulterior motive, other than to make people trip, and to see how creative brothers can come, when they want to.

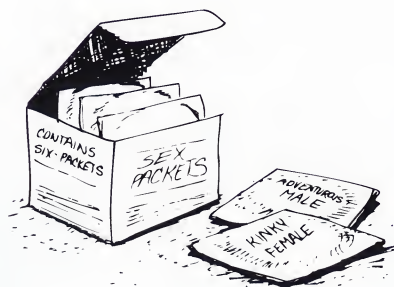
M2: I saw you on stage with Bootsy Collins and the Funk Mob last



Bay Area Community Health & Drug Report
A Service to Your Community August 1989

SEX PACKETS

A TEMPORARY ANSWER TO AIDS?



Know the facts before you use them.
Here are a few helpful tips concerning their use.

month. What was that like?

G: It felt so good being up there, it was *kickin'*. Bootsy looked kind of surprised. Maybe he's had rappers in the past come up and maybe they lacked a little P. Funksmanship or something and didn't just flow with him so smooth. So everybody just grabbed the mike and we just fell into it. "If you hear any noise, it's Bootsy and the boys." And he was like, "All right!" I don't know how he figured I was gonna hang. They looked down in the middle of the show and saw me, Smoove, the Maggot—that shit was crazy—standing there going like this. [*P. Funk motions*] They were like "Oh, what's up, Humpty!" It felt good to let them know we was true Funkateers.

That was the closest I ever got to Bootsy. When I used to see him at The Coliseum we had the nosebleed seats and we would be like "Gimme the binoculars again! Oh look at that—he got a bass."

M2: Part of the P. Funk influence is expressed in the conflicts between characters Shock G and Humpty. Do you think the difference between you and Humpty is similar to the difference between Parliament and Funkadelic when they had distinct styles, one silly, one serious?

G: No, no, I think more closely oriented to the differences between Dr. Funkenstein and Sir Nose [*Sir Nose D'Voidoffunk, one of two opposing characters in the P. Funk saga. One was funky—Clinton as Dr. Funkenstein, one anti-funk—Clinton as Sir Nose, the archetype of the Pinocchio Theory: fake the funk and your nose will grow.*] So far Humpty doesn't appear to be a nuisance, but I can see where he might become one.

M2: A positive nuisance?

G: Yeah, I can see him starting to fall out with me about certain things. It's starting to show. But he's *down!*—just ask him to drop some rhymes from our next album. He does one cut called "No Nose Job," where he clowns mothafuckas like Michael Jackson who make it rich and cut off their nose. I can do one of the lines here: "People say, yo, Humpty, now that your records are sellin'/ain't it 'bout time you be bailin'/out of the community/and race that you came from?/Your face has got to change, son." We get off.

M2: Who is Humpty?

G: Humpty is my cousin from Florida. Humpty is the southern influence in the group, lyrically, attitudinally, and all 'round. You know I'm from New York, and in '79 and '80 that's where some of these brothers in Digital Underground got their hip-hop roots. Two DU people were there in the old school days deejaying when Hip Hop was being created, right, and they would go down to Florida and *kick it*. That's how I hooked up with Kenny K and Humpty. Humpty's experiences being raised down South are why he pronounces words a little more country and a little more pimpish and less serious. And that's why he don't know how to dress.

M2: Are you responsible for defining Digital Underground? Are you a pop group, or a conscious hip-hop band?

G: You know, it was only a matter of time till we had to let people know where the heart was at. But we had something that was selling so we ran with it and gained an audience, 'cause there are two ways to skin a cat. You can come out like PE [*Public Enemy*] and let people know up-front what time it is, or you can kinda do what KRS ONE did: He came out crazy violent, soaked up all the knuckleheads—then two hours later, he flipped. Flipped and got *busy*. [*He got political.*] The radio's doggin' him now [*treating him like a dog*], but he was real slick to do that because that's what he wanted to do from Day One. He made more noise by hesitating.

In PE's case they *came* with the bomb and went all the way out. What would it be like if a mothafucka like Prince *started* dropping bombs?

Nobody's ever really done that. So my plan is to slowly start weaving the knowledge and the reality into all this cartoonish shit and before they know it, this niga done woke up millions.

Like on "Doowhutchyalike," that has a pop flavor, but it had social messages, and it wasn't just the race thing. It's like, all this shit that is so important that people get killed and suffer for isn't really important. There's no necessary purpose in life. The only thing that's really important to the survival of human beings is to eat, and, uh, stay healthy, and reproduce, and that's it. So all you really have to do is be happy, and you can be happy through friendships, whatever you like. You don't have to have a new car to be happy—that's just society occupying your mind, so the people who are rich stay rich. You wouldn't need to worry about that material stuff, if the world was in a peaceful natural state—knowwhatimsayin'?

But there ain't nothin' that important so Doowhutchyalike, do who ya like, live how ya like, fuck who's thinking about what ya like. The only people that are excluded are people with big bunions—they have to go see a foot doctor. Everybody else is cool.

[*Shock G has to head out to the studio. A few minutes later, Humpty Hump comes out of a room, buttoning his plaid blazer.*]

M2: Yo, Humpty!

HUMPTY HUMP: Yo, Maggot! Where's that niga Shock? We need to work on the rights to my work on our latest material. What's up, guy? Oh!

M2: Humpty, what is this conflict between you and Shock? You're arguing with him on your EP ("Arguing on the Funk") as if you can't stand each other.

HH: Oh, man, he's just trying to tell me I ain't down with the P.

**He clowns
mothafuckas
like Michael
Jackson who
make it rich
and cut off
their nose**

**Public Enemy
came with the
bomb and went all
the way out.
What if a
mothafucka like
Prince started
dropping bombs?**

of realizing that in a Digital Underground show there ain't no real star, it's a collection of the whole thang. But I got the most bitches. I got all the hoss. See, Shock ain't tryin' to be no mack. But me, that's my weak spot is girls. That's why I got 23 Humpty Girls. *Twenty-three completely initiated Humpty Girls.*

M2: What's Humpty's goal in life?

HH: Oh, yeah, to be the funkiest person in hip-hop—and the most creative niga in bed, to really know how to turn a freak out, so it's like this mothafucka is an artist. How do you think Humpty can hold down 16 Humpty Girls? Each Humpty Girl has her own apartment, her own phone, her own car, and they all take care of Humpty's little needs, and they take their turn sleeping with Humpty, sometimes two at a time, it all depends on who's been good, you know what I'm sayin'? They occasionally pop up with Humpty on the road. We been all around the world for THE FUNK.

To be honest witchya, Humpty be surprised if he don't have a baby in every country. Humpty was knockin' skins in Europe. If it wasn't for gym hats [condoms], I'd have little satellites all over the world. Thank God for gym hats. But yo! Money B & Tupac, they're like Ice Cube, they have a gangster vibe on freaks, they just run through 'em.

M2: Do you hear from women's groups that get upset by what you do?

HH: This lady wrote to the record company. I wish I had this letter to show you—this one was typed and everything. It said, "After hearing 'Doowhutchyalike' and 'Underwater Rimes,' it's a shame that Shock G

Funk, you know what I'm sayin'. I'm down with it. I just don't go back as far as he does and a lot of times he just rubs that in my face. That night we both had a few brews, you know, and got into it in the studio. The engineer had the tape on and we just got busy.

M2: Do you two get along?

HH: Yeah, we do, but he gets mad sometimes because they always come to interview me and not him, you know what I'm sayin'? They come to see HUMPTY. He knows it.

M2: Are you the star of the show?

HH: Most of the time, but you know, after being with Shock G—we didn't get a chance to grow up together, but, uh—he's enlightened me to THE FUNK in the way

can play himself like that. He just jumped in the bag with all the rest of the rappers that degrade women," and this and that. "I found DU's album to be completely sexist, and very blah-blah. Therefore I am returning this album. I expect a full refund." She was a trip!

I noticed the letter was addressed from San Francisco, so I kept that one for when I got back from the tour. We was ridin' around in a limo after an awards show, I'm in full Humpty gear, and I have the shit with me—so I tell the limo driver to go to that address. It's about 11 o'clock at night, I'm gettin' ready to give her her money back, introduce her to the group, and apologize. I knock on the door: "Who is it?" "Humpty Hump." "Is that you, Mike?" "It's Humpty Hump." "This some kind of a joke?" "Look through the peep hole." "Oh, shit!"—she opens the door. I say, "Yo, what's up? Did you write us this letter?" Karen, her sister, comes downstairs—she's a writer for a feminist magazine. She says, "What are you doing here?" I say, "You know what I'm doing here." Then I pull out a big wad and give her \$15 and say keep the change.

She says no, it's OK. I say, "Naw, you was right. We're sorry we offended you, sorry we hurt your feelings. We will come a little wiser on the next album. But you know the market's tough—people sellin' the most right now are 2 Live Crew—and we want a piece of the action. On the next record we'll make up for it. Here's your money back—nice of you to write and let us know." I wish I could say that to every one of them.

On our answering machine we got a crazywack message that went, "Oh—Digital Underground? I dialed the wrong number but this is great, cause I got a chance to tell y'all that y'all nigas are WACK. You and Too Short, y'all should be doing things like KRS ONE and Chuck D—trying to upgrade women instead of downing women and calling them bitches all the time. So I hope y'all get it through your head" etc. You know, she served us up. I'm saving that shit—I'm putting it on the next album, as we fall into a cut that shows a different side of us... **M2**



**Humpty was
knockin' skins in
Europe. If it
wasn't for gym
hats I'd have
little satellites
all over the
world**

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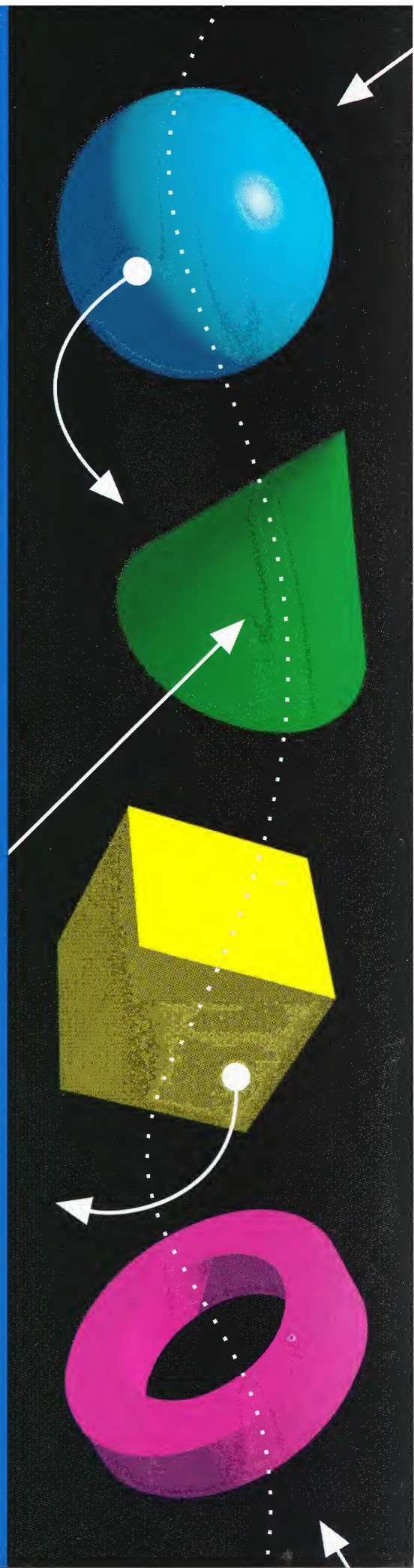
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REPTILES AND VIRAL INFECTIONS IN JAPANESE

cyberPop

Joichi Ito

Pop culture is a multi-billion dollar industry in Japan. Huge advertising agencies and department store chains feed the pop culture addiction. Pandering to the now well-established *shinjinrui* (literally, new-star set), they provide a neutered, sterile hybrid of pop culture and hard-core consumerism. Safe, saran-wrapped, and embossed with the corporate logo.

These huge organizations mine the raw material from the pop-culture in the streets of San Francisco, Manchester, Los Angeles, London, Chicago, and New York. Then they process it. After carefully removing the seeds, the fruit is preserved, cleaned, packaged and sold. In the midst of the shrinkwrap of corporate Japan, independent party producers and animators are a constant menace to structural stability. Instead of feeding the population the seedless grapes of over-designed pop-culture, these independents are trying to inject the memetic message of a new culture into the Japanese organism. The organism's immune system reacts.

The organism maintains a delicate balance between Japanese corporate culture and the Yakuza ("The Water Trade"—sort of Japanese mafiosi). The Yakuza are known in the West from the movie *Black Rain*, and for their tattoos and missing digits. Their turf: prostitution, amphetamines, and the Roppongi club scene.

Enter Connie Yee—a Singapore-born, New Zealand educated, Japanese pop-culture activist with fluorescent orange dreadlocks. A deadly polyglot megamix virus. Organizing underground parties with her Italian, British and American partners and preaching her club culture, Connie has been a singular voice of hope. With dancing after midnight banned, only corporate connections and the Yakuza can fully protect parties from the police. Refusing to work with either, Connie is always a target. [see sidebar]

Another potent virus in the system is the team of DJ Sekine (Mad DJ Baby Tokio) and Andy and Dave of Hyperdelic Video. DJ Sekine mixes house, hip hop, funk, soul, reggae, rock, new wave, ambient, Manchester, techno, body and new beat into an aggressive digital mega-mix which only the energized can keep up with. Live and in sync with Mad DJ Baby Tokio, Hyperdelic Video digitally mixes solarized, fed-back, distorted images of TV ads, war clips, movies, computer graphics, and live video of the dance floor. Then they insert these highspeed oscillating realities into the minds of the participants via projectors and monitors. The result is an immersive cyber-group consciousness that will destroy the memetic make-up of even the most passive.

As the nocturnal inhabitants of Tokyo begin to absorb the messages of these cyberpop viruses, the desire for processed pop-culture decays. With it will die the committees and the corporations which currently run the pop-culture industry. These lumbering reptilian structures are currently thrashing about trying to ward off the inevitable triumph of the independents. As these dinosaurs collapse, they will shatter the crystalline matrix of Japanese corporate culture, dragging it down to the dirty ground. **ME**



Recently after an 808 State performance ending at the magic midnight hour, the crowd waited patiently in the commercial clubs for the 5 AM rendezvous at the discreet club that Connie had picked for her "spontaneous" after-hours party. Around 5 AM people start to drift into the unmarked, unlit basement entrance of the club. Around 6 AM Connie drifts in with the members of 808 State. Slowly the party begins to pick up as the crowd gathers. With DJ Rickey Montanari, from Italy's hot house scene, and Dr. Light, animator extraordinaire from London, Connie brings the energy level of the club up to psychedelic heights for the eager dancers. One hour later, two plainclothesmen with a pre-written warrant shut down the party and begin to ask questions. Connie, whose name must not be connected with the police records, is shuttled by her posse to a nearby bar before the police can get the mob scene at the club organized. **ME**



Pamela

You can't do without structure. You can deconstruct 'til you have diced and chopped all meaning out of a text. You can generate noise in endless variation until you seem to have challenged the primacy of structured musicality. But you can't fly in a random pile of nuts and bolts and metal plates—if it's not an airplane, you won't make it to Jamaica. Performance artists who insist upon utter nihilism, avant musicians who work only in noise, can transport us nowhere. Like anti-meaning post-modernists, they can only comment on the particular island of static they've chosen for themselves.

Pamela Z is a performance artist, an avant musician, a woman writing and singing from beyond. She's radical and exuberantly free—but not unstructured. Pamela Z transports us. She's taken tools once used for standard performance—classical and jazz and pop and theater—and used them to fashion something that requires whole new sets of critical standards. She uses sampling—and so does Rap; she uses delays and tapeloops—and so does Pop music; she uses her classically-trained voice—and so does opera. But she's leagues to the left of Rap, miles above Pop and she's turned opera inside out. Her stage presence is rooted in a deep intuitive confidence in the originality and crystalized control of her performance. I saw her recently, opening for a widely-known performance art group, and in contrast with their faint reprise of early Frank Zappa, Pamela Z was a whole new synthesis.

She's updated opera, and she's populist Charles Wuorinen. She layers Ultra-rationalist Serialism with a Philip Glass segmentation—but it's all just a frame for her poignant, rueful personal observation, her singular take on the world, reflected through the infinite mirrors of electronic "echolalia" and looping. Her performance takes what it needs from mime and dance; her hands perform arabesques reminiscent of Indonesian sorcery. She interfaces with electronics, twirling knobs and jacking midis with the laser precision of the true 21st century artist. She's Robert Fripp and Diamanda Galas gene-spliced. Part Black, part Amerindian and wholly unique, she's Pamela Z. Listen to her.

John Shirley

"The sound of the spoken word... once you start repeating it, there's a fundamental tone to each sound that becomes more prevalent as it's repeated. You begin to hear it as a melody. I often create melodies that way."

"I started the kind of thing I'm doing now when I purchased my first delay—a one-second delay, which seemed like an enormous amount of time to me. I was amazed at what I could do—one second in music is a lot of time.

"I started creating loops. I used the infinite-hold function of the delay—so whatever I had put in, repeats endlessly—and used that as the rhythm track, and sang and spoke over it.

"But digital delays are like drugs. I've kept on buying them, longer and longer delays—I've just bought a couple of eight-second delays."

"When I first started using the delays, I was living in Boulder and I was an acoustic singer/songwriter. I was maybe perceived as Boulder's version of early Joni Mitchell. And the people who would come to see me were these natural-foods, natural-fibers, natural-music types. So when I started using these electronic things—you can imagine... 'Oh, but you have a beautiful voice! You don't need that!'

"Really though, the technology isn't cold or imprisoning at all. In fact, the electronics free me to create as much sound as I want to with my voice alone. I consider that the combination of voice and delays is *one instrument*—my main instrument."

"In a sense, I'm really technologically driven. The important points in my life musically are when I find new instruments. Whether it's got digital processors inside it or it's wood with strings, when it's totally new to me I get these unintentional things happening.

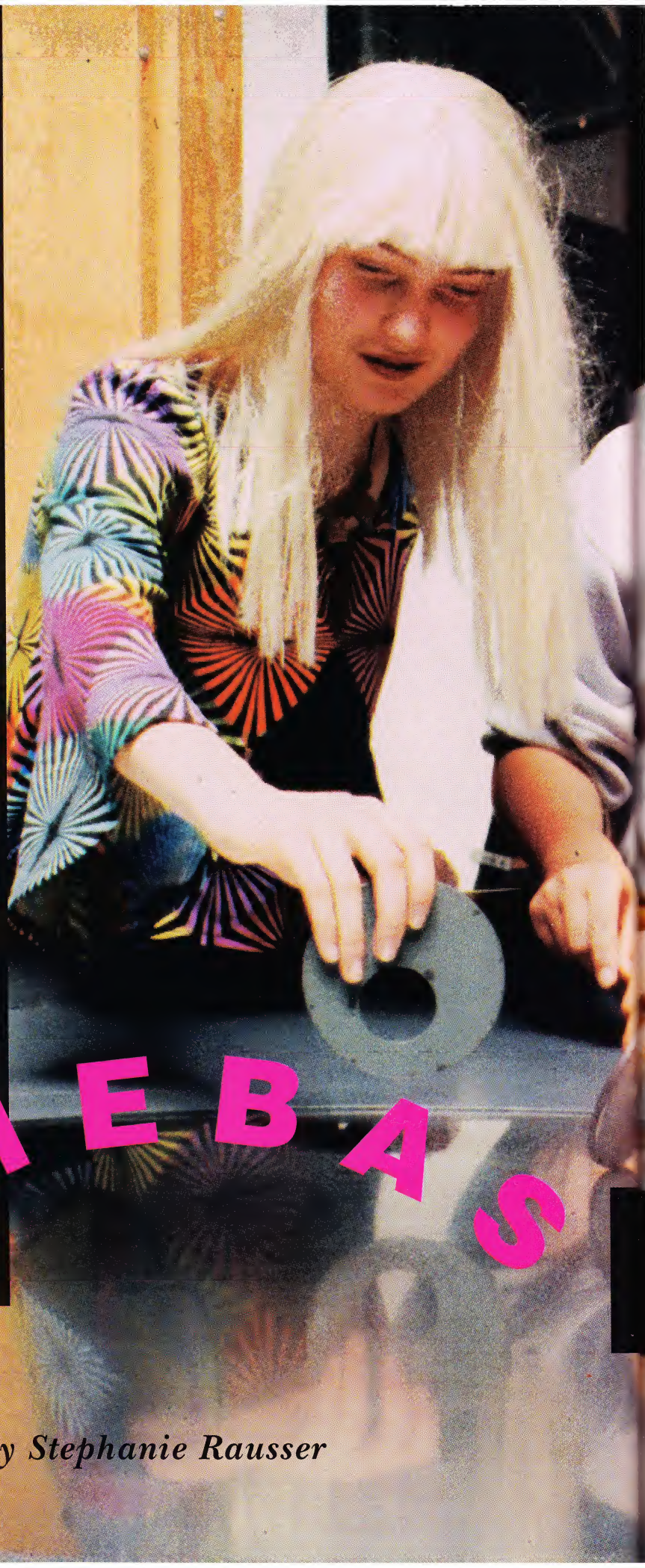
"It's like Cage's chance operations, or Eno's ideas about happy accidents or honoring your mistakes. I write entire songs around mistakes. I get creative bursts because of a result that I would never have come up with if I had tried to do it deliberately. And that's where the fuel comes—for my fire, anyway."

"People find messages in my music, but really I use words because they *sound* interesting. One of the most obvious examples is "Pearls, Gem of the Sea." Almost the entire text—the story line—comes from a sales pitch that I had to give at a jewelry store I worked at. The opening line is; "have you ever been to a pearl farm over in Japan?" Terrible sales opening but it sounded great as a weird text to recite. The piece goes on to tell this story of how they culture pearls in Japan, and who invented the culturing process... all from this sales rap. And then the chorus was my own invention, based on how I would play around with this rap to make it my own. *There is no message*—I just thought it sounded interesting. But people think it's an animal rights song! [laughs]—"We shouldn't implant that irritation in these poor oysters." And a few people thought it was a song about wanting public funding for my art! **ME**

Photograph: Bart Nagel assisted by Heide Foley

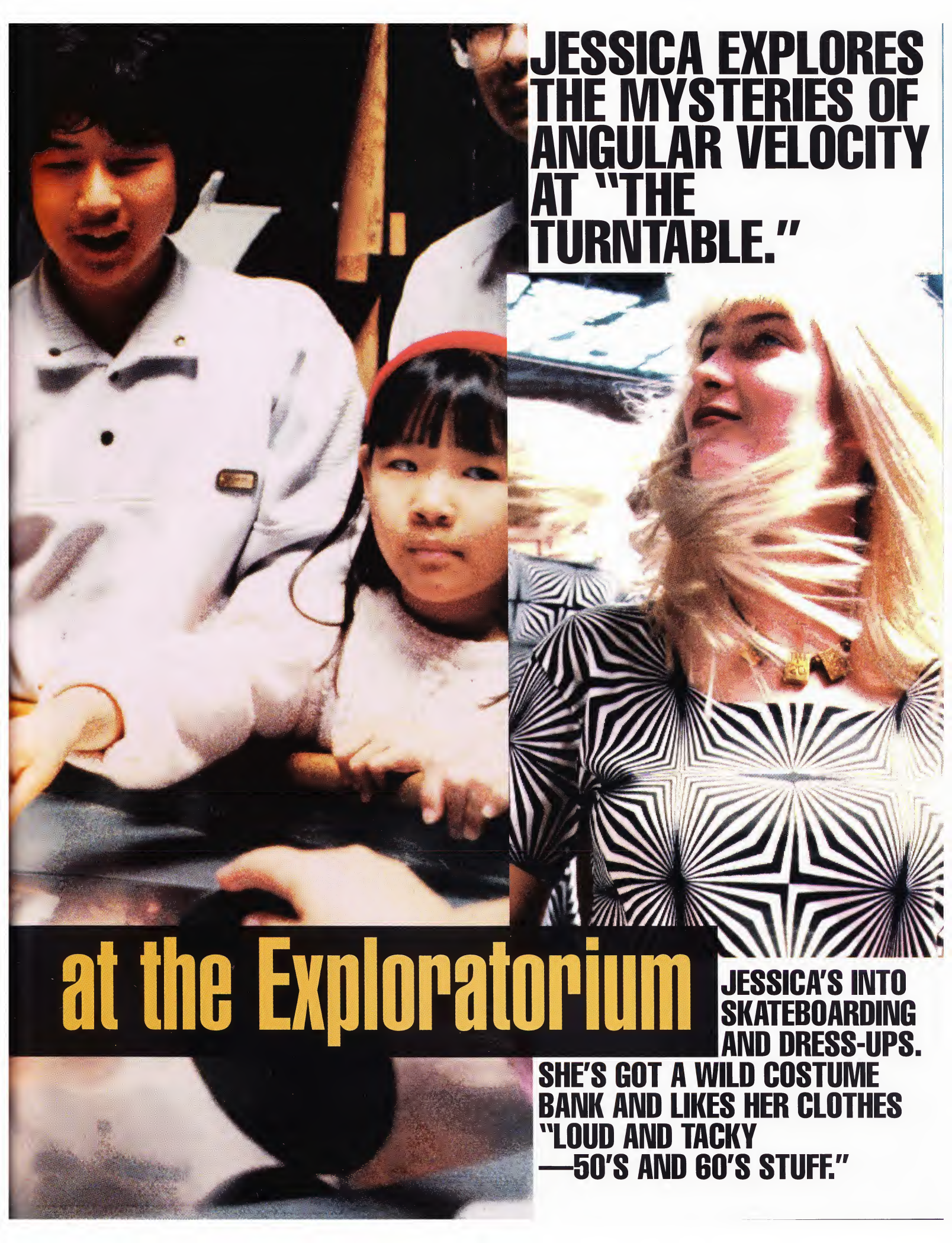


The Exploratorium is a hands-on science museum for the infinitely curious. Housed in the Palace of Fine Arts, originally built for the Panama-Pacific Exposition, it was the first museum of its kind. It has played host to San Francisco's alternative community from its inception back in 1969. From experimental music to artist-in-residence programs (with the likes of Brian Eno and Laurie Anderson) it is also a favorite spot for private parties and cabals. The first Wednesday of the month was "free day" and the place echoed with the squeals of stampeding kids.



A M E B A S

Photographs by Stephanie Rausser



**JESSICA EXPLORES
THE MYSTERIES OF
ANGULAR VELOCITY
AT "THE
TURNTABLE."**

at the Exploratorium

**JESSICA'S INTO
SKATEBOARDING
AND DRESS-UPS.**

**SHE'S GOT A WILD COSTUME
BANK AND LIKES HER CLOTHES
"LOUD AND TACKY
—50'S AND 60'S STUFF."**





Amebas are everywhere!

A transplant from New Zealand, VIRUS mutated into AMEBA on these shores. Their screen prints of arch-villains and arthropods, sacred glyphs and op art patterns, are quintessentially MONDO!

Exuberant, macaronic, world beat, megamix—Ameba positively exemplifies the gusty spirit of fashion in the Haight.



Marcia's an unabashed romantic with a yen to play Juliet. Her favorite color is purple but she lights up sea-foam green.

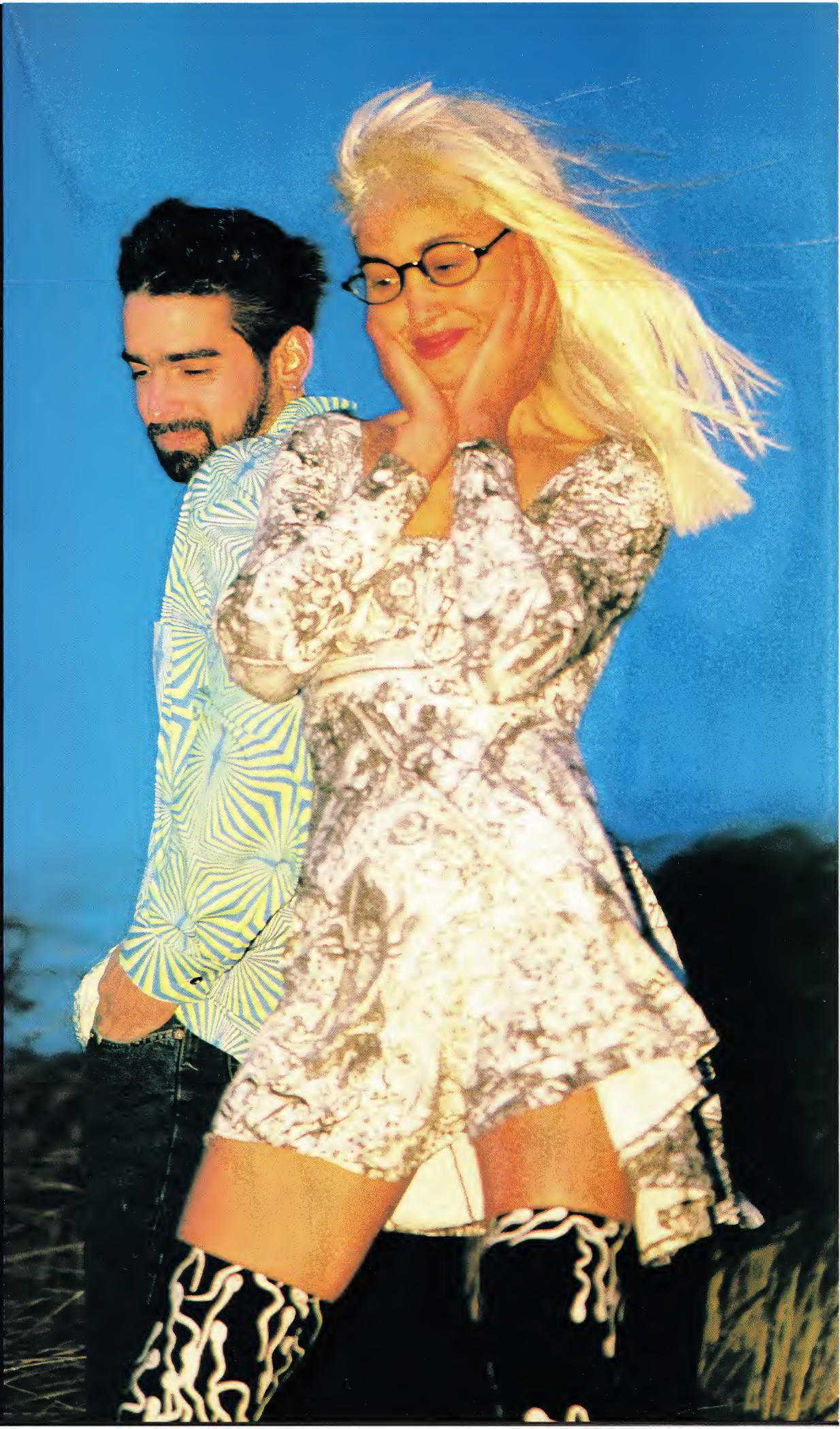


Here Marcia tempts the rip tides at Ocean Beach. A surfer's dare spot and white shark haven, its dunes shelter lovers and its caves house beer parties.

Mark and Jin Metz are the design geniuses behind Ameba. Jin got her start designing costumes for the Sidney Opera in the early 80's. They met in '86 working on the film project with Survival Research Labs called "A Bitter Message of Hopeless Grief."

Their life together has been anything but bitter and hopeless. Married, with a 13-month-old daughter Isabelle, they've launched a new "Wee Ameba" line that goes down to size 0.

Amebas are protean, amorphous, everchanging. The core of the line is for skinny women, but they dress everyone from hunks to babies. They're particularly beloved of rock groups like Psychic TV and The Genuine Diamelles. Madonna, Todd Rundgren and Robyn Hitchcock scoop up Amebas to wear in their off-hours. Their hand-painted numbers are unique; their silkscreens are limited editions. They can be found at 1732 Haight St. San Francisco 94117. Tel: 415-750-9368. Their new 800 number is 1-800-BYAMEBA.





**Her menu for
a lovers' picnic
in the dunes:
Armenian
string cheese,
cucumber
tahini,
pita bread,
chocolate
covered kiwis
& a jeroboam
of Moët et
Chandon.**







Emma Anderson and Steve Rippon of Britain's Lush in Conversation with Diana Trimble and Jas. Morgan

We're sitting at the bar at the Kennel Club in San Francisco waiting for the latest 4AD offering—Lush—to complete their soundcheck. Some guy from Warner Bros. asks to look at a copy of MONDO: "So what's yer magazine about?" giving it a cursory glance. "Well, it's about high technology and its effects on popular culture. We're the Power Underground" sez Jas. Then the band's manager offers his opinion, "It looks like you're seriously into the drug culture." Diana concurs, "Yes, we do take drugs seriously."

They hand us the keys to their rented Detroit chrome mountain outside on Divisadero and assure us that singer/songwriter/guitarist Emma Anderson and bassist Steve Rippon will join us soon. As we settle into the blue plush upholstery, and for a moment contemplate Grand Theft Auto, Diana asks "Have we thought of any questions yet, Jas?" "Well, I usually start these things off with 'How did you get like this?' just to break the ice." Our strategic planning is interrupted by a soft chiming as the rear doors open and Steve & Emma make their entrance. Social amenities exchanged, heat filling the sedan after a successful fumble around the expansive dash, Jas. begins, icepick at the ready: "Ahem, 'How did you get like this?'" A confused silence hangs in the air like a gastric accident at a Vicar's luncheon; nervous glances pingpong around the cabin's interior. An emergency psychic exchange takes place between Jas. and Diana. D: "You seem to have gotten things off to a nice start!" J: "Well, some take it like pigeons to Trafalgar Square." D: "When in doubt—resort to genealogy..."

MONDO 2000: Do you come from a musical family?

EMMA ANDERSON: No. His family's trip is madness.

STEVE RIPPON: My granddad used to play in a dance band in the 1930's. Him and his mates were unemployed and in the Depression they used to go around in a horse and cart with instruments on the back and just set up in markets and play. I think he played the banjo or the

Lush

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Suzi Gibbons

ukulele, or something like that... like the English equivalent of playing music halls.

M2: [To Emma] Any madness on your side?

EA: Probably. The only music my parents were into was singing hymns and chants.

M2: That must have been a great inspiration for you. What other things have inspired you? Literature, music, nature?

EA: Boredom I think. Honestly, that's when I write, when I pick up my guitar... or if I'm walking down the street a tune will come in my head, sitting in the bus.

The only music my parents were

I also like twentieth century classical stuff. [pause] I used to like Debussy.
SR: Vaughn Williams.

EA: Yeah.

SR: I like Erik Satie. I have to play it when I'm in the mood.

EA: And Charles Ives!

M2: What about vocally. Are you interested in madrigal or chant or things like that?

SR: I like that stuff. I really like the new Dead Can Dance album. Sort of early English ensemble music.

I HEARD IT ON SLAG STREET

M2: Was Robin Guthrie very influential in shaping the Lush sound?

EA: All the stuff he produces has his sort of signature. He has very strong ideas about what he wants to do.

M2: Would you consider producing yourselves at some point?

EA: No. We're not knowledgeable enough to do that yet. We're still pretty lame about that stuff. But each producer we've worked with we've learned something from.

M2: How did you get hooked up with him? Was it through 4AD?

EA: We just did a few demos and sent it out to six labels, including some independents. Eventually they signed us.

M2: Did it take them a while?

EA: Yeah, 'cause we were really bad live. The word on the streets was "Don't sign!" We were really bad. Even the guy who's our manager, who used to work at 4AD, he was the one trying to tell Ivo, the guy who runs 4AD, not to sign us 'cause we were so bad. And now he's managing us.

"GUNGE YOU, WHITEHOUSE—HA HA, CHARADE YOU ARE"

M2: We deal with issues of personal freedom, electronic freedom. Does censorship touch you in any way?

EA: We've never really had that problem. Being in England our record label is really small. There's only about five people that work there....

SR: Nothing could be put out knowing that we didn't agree to it first. And in America as well, it's the same.

M2: Is there as much of a problem with censorship in England? It is getting really bad here.

SR: It crops up occasionally, but on a really small scale. Like Radio One—a national radio station—is the only one that counts, and sometimes they ban records.

M2: Is Mary Whitehouse (a British pro-censorship activist circa 1970's) still in action?

EA: Yeah, she's just junk.

SR: She's like a TV personality.

EA: Did you see that thing where she was gunged on TV?

SR: Yeah.

EA: There's this quiz show in England and each week they have some personality, and a member of the public on. They have to answer all these questions and if they don't do it quick enough then the personality gets all this gunge put all over them. Mary Whitehouse was one.

SR: She hasn't got a lot of influence anymore. She's cliché. You know ex-

actly what she's going to say before she even opens her mouth. People tend not to take a lot of notice.

M2: It doesn't seem to matter how predictable they are. They still get away with having a lot of power. Here in the States we have these psychos like Jesse Helms. He's a senator who lobbies to block funding for museums who would show exhibits he defines as offensive. Are there any politicians in Britain who are calling for repression of ideas, or personal freedoms?

SR: Tory M.P.'s (*Members of Parliament*). There are some unbelievably right wing Tory M.P.'s, but it's the same thing as Mary Whitehouse, they're really taken seriously by hardly anybody. The right wing Tory papers are all right (as far as censorship is concerned), but Teddy Taylor says "ban this or ban that" or "this is corrupting the morals of the..."

EA: I suppose it's like Clause 28. It is pretty bad.

M2: What's Clause 28?

SR: It was like banning any representation of homosexuality in the media or schools. It is a hard thing to enforce in the first place.

EA: It is enforced.

SR: Yeah, it is enforced, but it doesn't make a lot of difference.

WE AIN'T GONNA PLAY ON MAGGIE'S FARM NO MORE

SR: They've had financial cutbacks in the arts. Like theaters closing down, that sort of thing.

M2: The Greater London Council went down too.

EA: Right, people were being funded by the GLC, so when that stopped, the arts were gone.

SR: Thatcher was completely against arts funding, basically. I was reading in the paper today that everybody involved in the arts and arts administration is hoping that

the new government would show a bit more faith and response. I think it would be really good in Europe if the EEC (*European Economic Community*) got more political power. Because there seems to be quite a bit more of a liberal attitude towards socialism in Europe as a whole than in Britain.

ORIENTAL/OCCIDENTAL, LEFT-BRAIN/RIGHTBRAIN: CONNECT THOSE HEMISPHERES

M2: After the States you're headed for Japan?

EA: We're doing four shows in Japan. We're there for about ten days or so.

M2: Does Japan interest you?

EA: Yeah. We've known other people who have been there. You're treated like gods. It's really weird.

M2: It seems that they're very keen for Western pop culture and creative ideas. Do you know there's no equivalent, in Japanese, for the word "inspiration"—in the sense of "creative inspiration?"

EA: Everything there seems so geared towards work, work, work.

SR: Their attitude towards Western pop music is a bit strange. When something from the West becomes really popular it's immediately reproduced in a Japanese version. They put this Japanese version out and really sell it and sell it. I heard there were three Japanese blokes singing carbon copies of Crosby, Stills and Nash songs in Japanese. They put out like five albums a year, for three years, and then just disappeared. Apparently they do that a lot in place of Western things that have become popular.

M2: So after you guys leave there'll be a Japanese version of Lush.

SR: Yeah, right.

EA: Brilliant! 

into was singing hymns and chants

SKINNY

Edward Tywoniak

PUPPY

Located just over the United States/Canadian border is the major seaport city of Vancouver, British Columbia, home to the National Hockey League's Vancouver Canucks and one of cyberpunkdom's favorite musical aggregates, Skinny Puppy. Skinny Puppy's trio of visionary performance artists extend the boundaries of reality and surreality in their live concert performances. Their music has been captured on five Columbia Records discs with titles like "Rabies" and "Too Dark Park." Recently Mondo 2000's Edward Tywoniak had an opportunity to talk with two thirds of Skinny Puppy, singer and visual artist Kevin Ogilvie (who goes by the moniker Ogre) and keyboardist Dwayne Goettel. Following is an excerpt from that conversation.

DO OGRES DIE OF ELECTRIC MEAT?

MONDO 2000: When did the band get together?

OGRE: We had an idea in 1983 of doing this band where we could do strange things onstage in order to alter people's perceptions about what was going on—make them believe certain things were real and certain things weren't.

M2: What were you doing on stage to give this illusion—this warp of perception?

O: We'd hold things up like gooey duck—which had a phallic, hallucinatory effect on people. And we did a staged assassination where a guy came out of the back room holding a gun loaded with a primitive flash system. We packed the thing with condoms and meat and charges, and this guy came running through the audience shooting at me. I hit the floor, and the thing shorted out on me. I was getting electrocuted so I was vibrating pretty heavily. People just started screaming—it was cool! We've done things with breakaway bottles where a person would come up on stage from the audience, just to put a taste of reality in all the fantasy.

GUERRILLA ELECTRONICS

M2: Have you been incorporating other kinds of more traditional multimedia—slides, film, video—into your stage shows?

O: Yeah. I've been learning how to video edit. For our last show we had an interactive stage show with video. We have an idea of using laserdisc players in a live situation where three people

would be mixing laserdisc images together, almost like scratching.

DWAYNE: Ogre figured out which images he wanted to use for certain songs, then he and Gary Smith took all kinds of found footage—some of it from first-run horror movies. With a disc player they could shuttle the images forward and backwards with really crisp quality—you get a type of digitized motion—then make them into loops. They got some really cool stuff without using all the video studio effects.

Our music also follows this philosophy. I hear so many records that sound like they just hooked a drum machine to a sequencer. *We've had fifteen years of music made that way and we don't want to sound like that.* There has to be more illusion.

M2: How important a role does the computer play in your music making process?

O: Quite a bit actually. When we mix, we run everything through the board straight down onto DAT tape. So it's all coming live off the sequencers and computers. We haven't done any recording onto hard disc recorders yet, except for some editing on a Macintosh.

M2: What kind of computer are you using?

D: Just a plain old Atari.

M2: What kind of software are you running on it?

D: Steinberg Pro 24. It's pretty simple and normal. We want to move up to something that has digital recording—with the sampling and sequencing built in.

I'd also like to see computers used more in the home entertainment market. I like having my VCR and my TV and stereo all hooked up together. It would be great to have a type of home entertainment center that would allow us to extend what we do now. I would like to be able to do my own mixing right there—add my own images onto the TV in a completely non-professional, home entertainment kind of way.

M2: Low-tech guerilla electronics.

D: I know these things are right on the edge of mass production.

M2: We're living in a pretty exciting time.

D: Yeah. But in terms of waste and planned obsolescence, it's also pretty terrifying. I mean, even those once-scary environmental clichés are starting to come true.



Boy did we
love those tits
and ass. Did
we ever love
that Pillsbury
Dough Boy.
But when I
watch TV now
I'm screaming
at it, "Shut
up!" and
"Fuck You!"

DOGGIE TOYS

Skinny Puppy's equipment consists of an Akai S900, two Roland S330's, a Yamaha SY77, a Yamaha SY22, an Emu Systems Emax keyboard, a Prophet 5, an Ensoniq Mirage and an ESQ.

POP 'N FRESH DOPE

M2: Yeah, I'm looking at all the technology around me right now and the waste of materials in it all...

D: ...and the stuff that came out only two years ago is already obsolete! There was this certain confidence that I had while growing up—watching movies in the classroom—that we had it all figured out. We never got the message that we didn't know what we were doing, so we continued to pollute. Hey, we thought that Man was a great success.

But just like any classic story, there's the hope that someone will be born and save everybody. It will probably be a technology thing—a *technological savior*. In a way, the most evil instrument now is television, and the savior will be the home video camera. Before, only the richest people had control of the TV and they decided what you saw—including the disease of advertising. But now because of video cameras in the USSR and the video camera that caught that guy getting beat up by the cops in LA, the power is beginning to even out.

Before, it was just information gushing out of your TV, and for the last thirty years we ate it up. And boy did we love it! Boy did

we love those tits and ass. Did we ever love that Pillsbury Dough Boy. But when I watch TV now I'm screaming at it, "Shut Up!" and "Fuck You!" I hope that people do the same. There has to be equalization within our media. We

can't have all the information going one way. It has to go back and forth like in a conversation.

M2: What have the Puppies been working on recently?

O: We finished a record about eight months ago and we just finished our fourth tour through America in December of '90. We probably won't tour again until the next album is released because it's so expensive. But I'm going out on tour in April with Pigface with Martin Atkinson from Killing Joke and some other guys. Skinny Puppy is just finishing up a video with Spasmalidic which turned out really well. We're in the on-line editing mode now. And we'll be touring the United States in the Fall.

GARBAGE IN, GARBAGE OUT

M2: What influenced you to get into what your doing?

O: I don't really know. It was just kind of a jolt from life more than anything else. I think it was our need to not adapt to the norm.

D: Your magazine has had an effect on me. When I was coming up through the States last time, I ran into some people who were talking about this magazine, *MONDO 2000*, and this scene going on in Berkeley that I didn't know anything about. Basically these conversations were centered around LSD and other mind-improving drugs.

When I went back to my home town in Edmonton, I ran into some people that I knew who said "Hey man, you gotta check out this new *MONDO 2000* thing!" After I saw it I said "I gotta get a subscription to this!" We're trying to figure out just what's happening in San Francisco. We have friends who say that there is going to be a new psychedelic explosion down there.

M2: Actually it's just a government plot to induce mass hysteria in the unsuspecting masses of Northern California.

D: I believe it! [laughs] Actually the thing with drugs is that you have to act responsibly towards them. Many people cannot handle the responsibility and go on to become alcoholics or drug addicts.

M2: Part of the problem is that people look at drugs or even religion as a panacea for your personal or global ills. But really all drugs are, are brain amplifiers—it's like garbage in, garbage out. If you are a together person to begin with, already on the road, it may help you get there a little quicker.

D: But even for that person there is still the potential for going overboard. I think that pot, acid and hallucinogens are much better for you than coke, heroin, speed and crack—those are substances that don't give anything back to the user. They're a trip that I don't condone. Not that I condone alcohol either. I think alcohol is the *worst* thing. I could see people comfortably smoking up and never beating their wives, never running out and robbing stores to get a fucking joint. And I could also see emotional, social problems eased if you could go to your doctor and get a prescription for a hit of acid and then go home to your lover and have a good time.

There is a whole part of society that is missing the magic. It's not there anymore. You go to a church to experience something and they don't give you anything real or substantial to deal with. People don't believe in anything anymore. They look at the TV and the whole world is there, created for you. But it doesn't really exist. It doesn't give anybody anything to hold on to. Nobody feels part of society anymore. I'm living in this building with perhaps one hundred other people and I don't know any of them. We're all putting up psychological as well as physical walls around ourselves.

M2: Speaking of that, do you guys live together in some kind of collective arrangement?

O: No, we have our separate lives. It would be crazy. We'd kill each other for sure! **M2**

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Dick Termes, *Solid Corners*, 1981
See "Six-point Perspective on a
Sphere: The Termesphere,"
Leonardo 24:3, 1991

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Brian

Eno

All the clouds turn to words
All the words float in sequence
No one knows what they mean
Everyone just ignores them.

—Sky Saw, by Brian Eno

Ambiguity, Yams &
Ju-Ju Spacejazz

Some of us grew up with almost no religious training, but we were reminded daily by Berkeley walls and sidewalks that ENO IS GOD. Exemplar for a whole race of art-school persons displaced into music, Brian Eno was the first and the most glorious. He was antic, he was pretty, he was potent—by rumor, he took on entire punk girl-bands, bass to keyboards—but most wonderful, he was intellectual. Hoop-la, here came popsong epistemology, and erst centered Californians were writing his name in soft concrete.

From the day he just sloped in on a Roxy Music rehearsal and started minding the tape machine, Eno put strange loops into pop theory and practice. From his first solo releases, *Another Green World*, *Before and After Science* and the slyly titled *Here Come the Warm Jets*, he's been a hero instrumentalist on what he contends is the most important new musical instrument since the electric guitar: the electronic recording console.

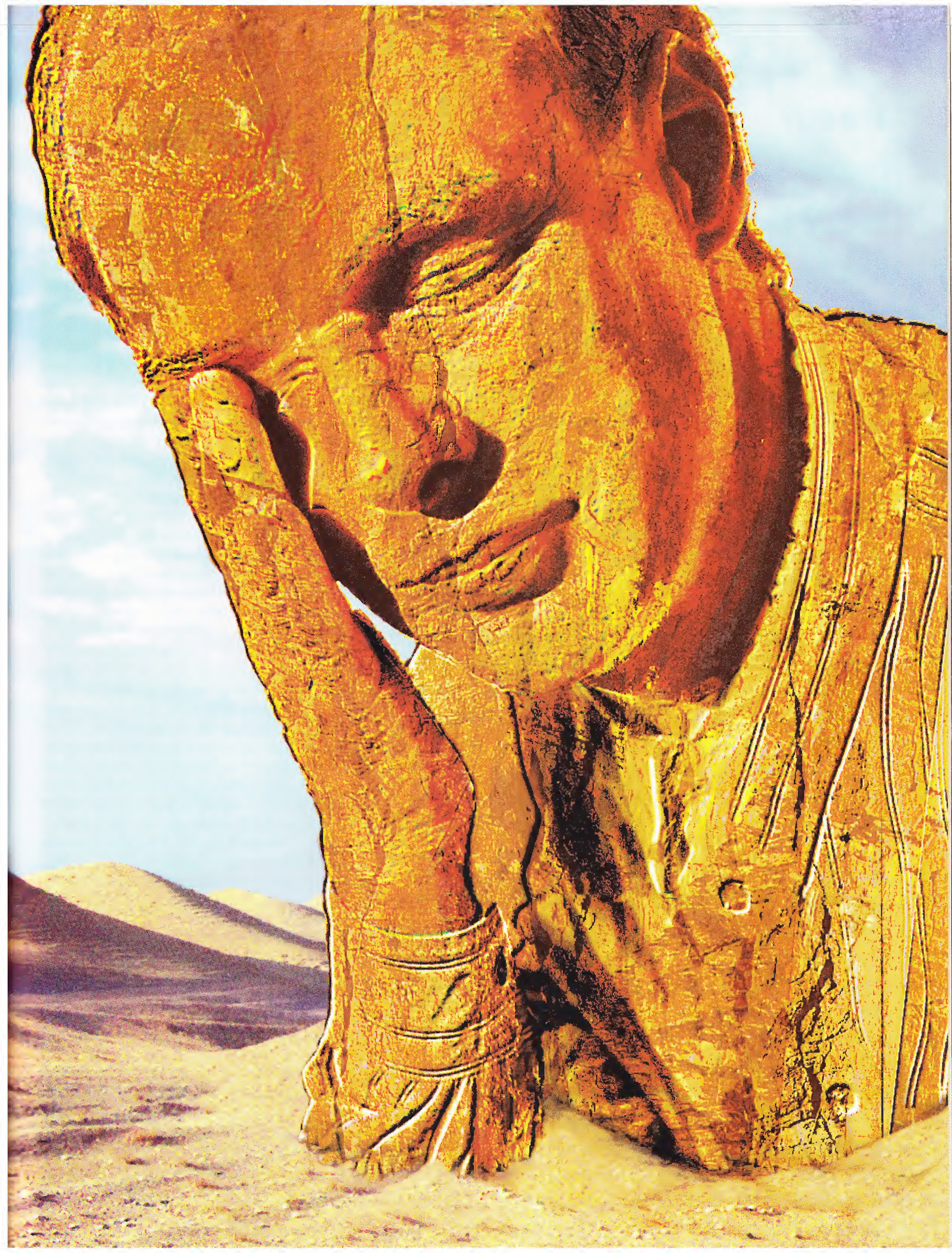
Pamela Z

Introducing the no-future kids to their Dada past, his delicate tenor voiced (in a plummy mid-Atlantic accent) lyrics by Tristan Tzara and for Kurt Schwitters. He created *Oblique Strategies*, a Tarot deck of strange advice for production decisions, such as: Omit the most important thing. And then there was the "found lyric," a technique for tweezing from his unconscious phonemes so naive that years later he is still discovering what they mean... as he explains next.

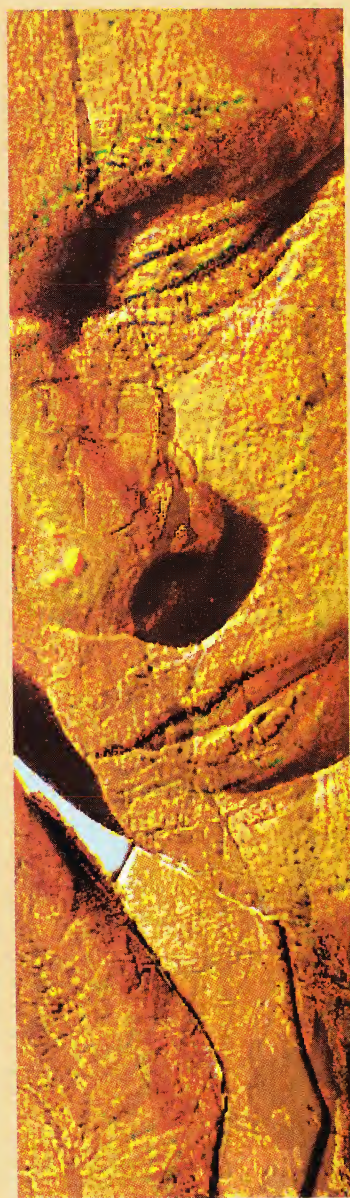
Performance artist Pamela Z stars here as interviewer and moderator in "An Evening with Brian Eno," the opening event of the Deep Listening Series at the San Francisco New Music Theatre. Through her, we learn the secret of Eno's cognac habit: a rider in his contract puts that glass in his hand—he doesn't touch the stuff off-stage, and he can't face an audience without it. He claims, this pop god, to be shy!

—St. Jude

Mark Landman, original photograph by Jay Blakesberg



The only reason you need 24 tracks is 'cause you can't make up your mind



BRIAN ENO: I started thinking that I should record in every city I'm in. I was booked to do a series of talks all over America. The series lasted about a month altogether and I thought, it'll be so long since I actually did anything musical I might forget what it is I'm supposed to be talking about. So I had this idea, a bold notion of setting up a new band in every city that I went to...Well, it's *my* music in a way, you know. They're not bands that ever existed before.

PAMELA Z: Oh, so they're your band. *Each one is your band.*

BE: Yeah, that's right. I tell each group the same story to begin with. I was in Japan recently. I was doing something for Toyota, and they took me to the factory where they make the cars. I was very impressed by the robots they have there—6-armed robots, they look like the goddess Kali.

PZ: But they're assembling cars instead of...

BE: They're building cars. But they're quite rhythmic in the way they move. They go *unt-unt-unt, zzt-unt-zzt-unt zzt-zzt-unt, zzt-zzt*. And then the next car comes along. I was sitting watching this, and it had a good noise, the whole thing, and I thought this would be a nice kind of music really: music for car factories. *[laughter]* And so that was my first idea. That I would like to make something that turned what they were doing into a kind of dance.

Mm, but then I thought the way they were moving needed a little bit of lubrication—actually they were very stiff 'cause they were Japanese, you know—so I thought: imagine if these industrial robots had been built in Nigeria. Right. What would they be like then? Well they would be broken for a start, *[laughter]* like everything else in Nigeria. So my code-word for this project became "Broken African Industrial Robot Dance Music." That's the scenario I give to the band each time. And

then having talked about this a little bit and what kinds of sounds might be involved in that, it's very easy to...1-2-3-4!...and everyone starts playing.

PZ: Un-hunh. And that's the music...

BE: And the only other rule is if it sounds nice, something's wrong. *[laughter]* I noticed this when I worked on this Cornelius Cardew piece a long time ago called "The Great Learning." The first instruction is "Sing any note." You choose randomly. And you do it with a big group of people. And the first chord they hit is very very dense and beautiful because people really are singing every note. But they very quickly slide into a few families of notes. And I always liked that first note when you have this beautiful, dense, breathy sound. So one of the other rules is "Whatever you hit, keep doing it," at least long enough to experience what it is, you know. Don't retreat into the safety of a simple chord. But we didn't have any trouble with that. Nobody retreated.

PZ: So when do you think this'll be completed?

BE: Well, what I do now is take those tapes back to my own studio and I start listening to them and finding this bit where something magical happens, where some really bizarre combination of instruments...

PZ: Do you think the musicians will recognize it when you're done with it?

BE: Oh yeah, because what I will do then is link those pieces together. Maybe a 16-bar fragment, make a part out of that, then take a bit from another song and put that in. I call this body of work Ju-ju Space Jazz. It has the sort of discoördination that you sometimes get in jazz which I like very much. You get this formula where they play the riff together, and then it all falls apart for 20 minutes, and they play the riff again. And then everyone goes home. *[laughter]* I'm trying to get that feel of that middle bit. But with the threat that there might be some kind of coming together at some point.

PZ: The album you made with John Cale—did you record it at your studio in your home?

BE: Yeah, I've got an archaic studio in my house. It's 24-track, so it's not that archaic, but it's state-of-the-art 1979. So the console looks really sweet. It's only about as big as this stage. *[laughter]*... And I've got 2 microphones and a couple of guitars and not very many other instruments. So it's a very simply made album in one respect, in the sense that there aren't echelons of overdubs that you have to wade through. That was from having a deadline really. Because I felt if I didn't, it would end up like most records do now—which is sort of overstewed, overcooked.

PZ: Has it been something you just went in and did quickly or have you been thinking about doing this for a while?

BE: No, I didn't think about it for very long. I haven't done a record where I've sung for several years. And I knew this was something that I could easily argue myself out of, as I have done in the last ten years or so... because I've somehow been cast into a certain role as the inventor of some obscure type of music. And this excludes the possibility that I might make pop records as well. I decided to forget that this year.

I had a daughter this year whom I'm very fond of. And her coming into being seemed so much more important than anything else... it made all of these discussions about whether I would do instrumental records or ambient records or song records or anything, all a bit... *unimportant*. So I thought I'll just do whatever record I feel like doing now. And so the John Cale record came out of that. And the new stuff I'm doing—Ju-ju Space Jazz—is something else again.

PZ: There's a question I've been meaning to ask you. The most important question. I was going to save it for last but I'll ask you now: What do the chords mean?

BE: The chords? Humm. Oh right, yes, yes: somebody in an interview said recently, "What do the words mean?" And I said "What do the chords mean?" Yeah. Yes, good point. [laughter]

PZ: And now on to something else.

BE: No, no, not on to something else. It's a good point to talk about. I was trying to explain to them that I thought it wasn't what words *meant* that was interesting, but what they did to you. And doing doesn't have a lot to do with meaning. If you look at other musics outside of ours, you find that a lot of what they're singing is nonsense. If you look at pygmy music, for example—sometimes it has one word in the whole song, one word that is elaborated on for hours. And the word can be something really simple like "yam" or "radio" or whatever's the new thing in the pygmy house. I don't know if you've ever heard of that book by Alan Lomax called *Folk Song Style and Culture*.

PZ: I have heard of it.

BE: That's a very good book. In that book he studies about 250 different ethnic groups, tribal groups. And he studies how they sing on 27 different parameters, like raspiness, polyphony. And nonsense is one of the other things he looks at. We write comparatively meaningful lyrics. I mean they're actually rubbish, most of them, but they seem to be saying something. They always say I love you, or I'm sorry you...

PZ: Or we shouldn't have war...

BE: ...buggered off or something. But nonetheless they engage our attention as if they say something...

PZ: I was reading that when you do use your voice, you really never concern yourself with trying to get some message across. It always is the sound of the words—they're just a part of the texture. I liked it that you've gotten rid of that concern...

BE: Well, it's funny, because I flirt with that concern actually. I haven't really got rid of it because meaningless lyrics are actually not interesting, if they're clearly meaningless. What's interesting is being on the border, of having the rich ambiguity of making it feel like there's something there but you're not quite sure what it is. And lyrics can give a lovely sting to a song. Just a particular word in the right place. It's like when you eat sushi and you get a bit of that green stuff under the fish.

PZ: It's especially good when you didn't know it was going to be there.

BE: Yeah, that's right. It's a little hit. And sometimes you get a marriage of sonic texture and word that is really beautiful. David Byrne is good at this, actually. Sometimes he puts words and sounds together that make you go "wow, that's really interesting."

...What you really want to be doing is to be writing lyrics that are outside of your own understanding, I think. They have a rightness to them. They feel like this is what you want to be singing. But you don't know

why. Um, some of my older records, I sometimes listen to them now and I think, boy, those are really interesting lyrics—at last I understand what I was writing about.

PZ: Well, it's the thing of whether you're very selective about what you release or not. Sometimes you can't tell until it's too late. Or maybe you never can.

BE: When you release it you really start to understand what you think about it. I think that releasing—"to release" a record is a very fortunate turn of phrase because when you release a record you set it free from yourself. There's a lot of courage involved in working that way, just accepting that that's it, that will be it forever.

Mm, rock musicians or pop musicians in general have forged tremendous technological advances by their lack of courage. [laughter] It's true really. If you

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Jay Blakesberg

think about 24-track studios, the only reason you need 24 tracks is 'cause you can't make up your mind in the first place. Well, that lack of resolution is what I think led to a new way of making music, which is what I call the painterly

Everything I do is riddled with paying attention to chance

style of recording—where you go in and you try that sound and then you put that one on next to it and then you put that one on next to it and you think, um, that doesn't look quite right. Scrape a bit of that off and add another one up here. You are composing empirically. Empirical composing is something that has been lost from music for quite a long time.

PZ: You played a long time ago with the Portsmouth Symphonia. And I was thinking about...

BE: Another great hit band. [laughter]

PZ: ...And I was thinking about the fact that you've often referred to yourself as a non-musician, and I'm just curious: when you played with the Portsmouth Symphonia what instrument did you play? And how did you do?

BE: Well, I should explain to the audience first of all what the Symphonia was. Gavin Bryers, who's an English composer, was teaching at Portsmouth School of Art. At that time in England—this was the late 60's—the only places that ac-

ing or something, and he formed an orchestra called the Portsmouth Symphonia. Now a lot of people think that that orchestra had only nonmusicians in it. That's not true. *Anyone* could join. And so actually the composition was much more interesting than if it were just nonmusicians. The rule was that everyone had to come for rehearsals and people should not try to sound silly.

PZ: They should do the best they can.

BE: The point was, it was most funny when people were trying hardest to get it right.

PZ: But the literature was all standard classical pieces.

BE: Oh yeah, we did every great classical piece. We just did the bit that was a hit. [laughter] We had a show at the Royal Albert Hall once that was really the apex of our career as an orchestra. I played clarinet, by the way, to answer your question. And what used to happen with the Symphonia was musically very interesting and I think really profound. The fact that it was funny as well was a bonus.

What was really interesting was that you got—if we're playing like the 1812 Overture—you got the *average* of the 1812 Overture. Because even if you can't play an instrument, you kind of know how to make it sound higher and lower, don't you? So everyone knew the tune: [*sings a fractured sample of the melody line*] [laughter] And when you have 80 people doing that... And it had this other interesting thing. Instead of getting a single line moving or a few single lines moving together, you got clouds, clouds of sound. I'm making it sound funny, but it was absolutely beautiful.

PZ: Did you use a score? I mean did they try to read a score or did somebody conduct it and you played it by heart?

BE: Some of the players did, yes. [laughter] We had a conductor called John Farley. Our great Albert Hall Concert attracted thousands of American tourists because it had every known classical hit. [laughter] I don't know how long they expected this concert to be. We were to be playing about 20 symphonies in there.

PZ: You just would do Ba-bap-bap-baaa. Bum-bum-bum baaaa. [*Beethoven's 5th*] And then on to the next one, right?

BE: That's right. The good bit, yeah.

PZ: And you performed John Cage's *Four Minutes and 33 seconds*?

BE: That's right. Also a short version of that: just the hit part. [laughter and applause]

PZ: So you talk about things that happen by accident causing more interesting work sometimes than what you intended. Can you think of a particularly interesting example of where that happened?

BE: Oh, Louis Pasteur. He's a good example.

[laughter]

PZ: I meant actually in one of your pieces.

BE: Well, people have often said to me "You're so lucky getting to do whatever you want to do." 'Cause I *do* actually do whatever I want to do, really. And I thought, hold on, I've got to take a bit of credit for this myself. So I evolved this motto that says "Luck is Being Ready." ...And you'll notice that people who are called lucky are actually what in Ireland are called chancers. Do you know that word?

PZ: No I haven't...

BE: It's a lovely word. It has a funny connotation because a chancer is usually someone who's slightly criminal. It's someone who knows how to take advantage of situations. Bono from U2 is a great chancer. He's very good at leaping onto a little situation that's only four cells big. He'll catch onto it and develop it. Anyway, after having that idea for some

Jay Blakesberg



tually gave modern composers jobs were art schools. The music schools had no idea what they were doing, were just interested in teaching people to play violins and so on. But because of the [John] Cage tradition, because of what had come over from America, there was a strong sense that this music had a lot to do with what visual artists were doing. So Gavin was teaching at Portsmouth under the guise of teaching paint-

years I read this thing that Louis Pasteur said which is, *Chance favors the prepared observer*.

I'm sure everything I do is riddled with paying attention to chance so...

OK, here's a good example. I've been learning Spanish for about 36 years [laughter] And I'm still not very good at it, but... [music]... When I was reading my Spanish book, I was reading this set of lines, exercises, and I thought, boy, these read like a poem. These lines from the Spanish book are the text [lyric]:

*Endless sleeping
Under the tree.
You wrote to me from Cordoba.
Drift of the fusion.
We went to his house.
He's a very generous Cordoban.
Waited at the door.
But he didn't come.
According to his father
He's very ill.*

*There was a long line of cars in front of me.
I came as soon as I could.
I left without paying.
Suitcase under my arm.
I won't see you until Sunday.
I'll come as soon as I can.
I'll meet you at noon
In the shoeshop near the bakery.
By the two-story house, very pretty, like a villa.
The lift stops between two floors.
Start to walk towards the station.
I'll walk towards the bus.
They'll have to wait at the station.
Leave the parcel on the top deck.*

*Start to walk towards the station.
I'll walk towards the bus.
You walk towards the station.*

PZ: It's exactly what you were talking about earlier where it sounds like you can understand what it means but...

BE: I thought, this is like an amazing poem, and what I read into it was: Two people who were probably lovers but who were also terrorists arrange to bomb a bus—"Leave the parcel on the top deck." This is the last time they were talking about it before they were gonna do it, the next day. And they'd sort of go, um, I'll meet you in the square by the bakery. The lift stops between two floors, right, don't forget that. Um, I'll walk towards the station, you walk towards the bus... just going through the moves again and again. But the way John—that's John Cale, naturally—the way he sings it is this strange combination—sinister and tender at the same time.

PZ: And they teach you to say that the lift stops between two floors?

BE: Yeah, you need that a lot in Spain! [laughter]

PZ: Do the people know, the Spanish book people?

BE: No, they don't know and I hope you'll never tell them! I mean, for

all I know this may have been a poem that this bloke had been working on for years. This was the only way they could get it published.

PZ: I always wonder how strict the copyright laws are on those things.

BE: It's been a big issue in England for some years—is there morally such a thing as intellectual property? Can people claim rights to an idea? And it's an interesting question because I've never made any secret of the fact that I steal ideas wherever I can. But at the same time people steal ideas from me a lot as well.

PZ: You were at one time gonna do a space that was like a permanent environment and call it the Quiet Club.

BE: The Quiet Club, yeah.

PZ: Did you ever do that?


BE: Well, I'd still like to do that. I keep proposing the idea to wealthy people but so far none of them have the foresight to realize what a huge money-spinner this would be. Imagine going to a club where nothing happens! Wouldn't that be a dream? I mean I'm already quite stimulated, I don't want more of that. You go to a club and the music's really loud and the lights are flashing and there's lots of drugs going around and people are taking their clothes off and... [laughter] Well, this is the kind of club I go to. [more laughter] In fact there is now a Quiet Club in Germany, you'll be pleased to know.

PZ: Oh really?

BE: Yeah. Two German psychologists [laughter] who have been interested in my work opened it—they have the Quiet Club one week every month.

PZ: And do they prescribe it?

BE: Yeah, yeah. That's right. People go there and listen to my music and kill themselves. **ME**



**What a huge
money-
spinner that
would be:
Imagine going
to a club
where nothing
happens!**

D'ückoo



Bart Nagel

In Conversation with R. U. Sirius and Jas. Morgan

*A*ccording to Jaron Lanier, godfather of the Virtual Reality crowd, a society's music and its instrumentation allow us to examine how that society expresses the highest form of personal art—the dream. Future anthropologists must consider how D'Cückoo embodies our dreams.

Fresh from a Japanese tour and a recording date with Brian Eno, D'Cückoo are the overnight darlings of the Virtual Reality set, laying down the beat for the high-tech tribal gatherings. With solid training in computer and synthesizer programming, electronic music composition, Western classical theory, Shona percussion and Taiko drumming, these four women sport a pedigree from funk to punk, Asia to Zimbabwe.

D'Cückoo is a techno-artist collective aka Aisle Of Women Productions. During the last three years they've designed and built wooden marimbas, electronic mallet controllers and drum trigger pads, interfaced with a sophisticated MIDI system of digital samplers and synthesizers. Currently they are working with the Biomuse bioelectric performance articulation system that allows musical gestures to be performed through muscles, brain waves and eye movements.

Part of the charm of seeing D'Cückoo perform is just watching them. The four women (Candice Pacheco, Tina Blaine, Patti Clemens and Tina Phelps) have a sensuous stage presence. All highly adept multi-instrumentalists, they dance among their unique instruments, trading off in an elaborate choreography.

D'Cückoo's songwriting has strength to equal their electronic expertise and musical performance chops. Lead vocals and beautiful harmonies deliver lyrics that display intellectual and political sensibilities, while never forgetting that music is founded on rhythm. If you are not dancing and screaming for more, there is just no hope for you.

D'Cückoo is a must see band. Like they say, if you are not part of the steamroller, you are part of the asphalt.

—Edward Tywoniak

UP FROM THE SLIME

MONDO 2000: Let's begin with something that you're probably asked a lot, about building your own instruments. Do you each do your own?

D'C: Quesadillas.

M2: Do you each do your own?

D'C: Spinach ravioli.

D'C: Spinach lasagna.

D'C: We always said that whenever we were interviewed, we were just going to talk about food so no one could ever find out anything personal about us. We'd always relate it back to things we've eaten or cooked or made.

D'C: So if you start asking questions that we don't want to answer, you'll hear about food.

D'C: No, Tina just talks about food all the time.

D'C: But yes, we did build instruments. It wasn't like we each built our own, though. We all spent so many sleepless nights soldering and trying to figure out how to hand-wire wrap our circuit boards.

M2: And they worked well?

D'C: They worked very well.

D'C: For two years we had less bugs and problems with those hand-wire wrapped boards than when we finally had the printed boards made. We had some really kinky problems with the printed boards. But the wire-wrapped ones, they were work horses.

M2: Did each of you build your own specific instrument?

D'C: No.

D'C: It was a collective.

M2: Was that the beginning of the band?

D'C: Oh, no, no, no.

M2: You were playing together before that.

D'C: We were an acoustic marimba ensemble first.

D'C: And we built those instruments as well.

M2: And was that D'Cückoo back then?

D'C: That was the Underground Marimba Ensemble.

D'C: That's what we called it, mostly because we always played underground. Literally. We were always playing in the old Mission Cultural Center, or in Patti's basement where the slime mold was growing. It used to flood over every time it rained and we'd have to move all our equipment to higher ground.

INTO THE PUDDING

M2: How did you guys come to be associated with the whole cyber thing?

D'C: Well, I was reading a magazine about Virtual Reality. And I thought, hey, let's try it!

D'C: When we saw the ad for CyberArts, we wanted to go to the conference.

D'C: Until we found out how much it cost.

D'C: Then a friend who was doing our sound said, "Why don't you be in it?" So we just marched into the offices at Miller Freeman.

D'C: We scribbled a note to Bob Gelman saying, "Here's our tape, we really want to be in this conference!" He called us two days later to say that he really liked our tape. He thought that we should definitely be at this event.

D'C: He sent it down to Dominic Milano, the editor of Keyboard Magazine, who claimed he didn't listen to anything else all week. He just had our tape in his car and kept flipping it over again.

D'C: So he agreed with Bob that we should do CyberArts. Since we were going to be in Japan, they were worried that our equipment wouldn't get back. It was very close.

D'C: Three days after we were scheduled to be back.

D'C: We came back and our equipment sat in customs for a week in LAX.

D'C: We were supposed to have a piece together with a dancer, Marci Javril, who was using a Light Dancer. When she broke shadows in a beam of light, she would trigger MIDI-events. We had that all MIDIed into our gear. We had to write the music, work with her, and she had to make up her choreography, all without our equipment.

D'C: So we did air rehearsals. Where we'd go... [mimics percussion], then there's *this* part, and you'll be triggering *these* sounds. She would just move through the air and pretend.

M2: So after you played CyberArts people said play at Cyberthon?

D'C: That opened the floodgates.

D'C: We're the perfect virtual band, you know.

D'C: Oh, no!

M2: Let's get out of this virtual ghetto here.

D'C: We're the *real* thing.

D'C: We're definitely an interactive band and we encourage a lot of participation from our audience. Now that we've started to get more exposure, people aren't standing around and gawking at us so much anymore.

They're getting more involved in what we do, and they really appreciate what it takes to make this happen.

INDIGENOUS SEQUENCING

M2: It's supposed to be dance music.

D'C: Right.

D'C: What's different about us is that most people get into the technology first. They have incredible access to all these tools, and then they try to find ways to use it. For us it was the other way around. We came from this very soulful, heartfelt place of music, playing on these big, fun instruments. But we wanted to use all the technology that was out there, to expand our whole visual element as well as our music. I think that's what people relate to the most. Often when you go and hear amazing electronic

music, there's all these tools you can't see. Everything is small, black, and sleek.

M2: People who get too fascinated by the technology usually make this really corporate sound.

D'C: Or pay more attention to that little man behind the curtain. A Wizard of Oz kind of thing.

D'C: If you watch us it's pretty obvious who's playing what because our playing style is so big.

D'C: That's what gave electronic music a bad name. People have this aversion to it because of that, but now it's quite different.

M2: Well, **everything is electronic now.**

D'C: We still get that response, though. You should see people bristle sometimes when they hear the words synthesizer or electronic. Also, because we come from a background of indigenous traditional music, people are expecting this very ethnic thing. And it's true, that's where our hearts are, and that's what we put into the electronics. But sometimes we really have to win people over because they have this attitude of "What have you done to indigenous music?"

M2: "What a horrible thing to do."

D'C: Right. Indigenous music is what inspired us, but we just want to

use what's there in terms of technology. We still give it that warmth and heart.

M2: Also, you don't sing about computer chips and cyborgs.

D'C: No. We're not like Kate Bush. We don't sing about "My Computer."

M2: Some of your lyrics are political, right?

D'C: Very.

D'C: "Lies," deals with womens' rights, "Somebody Else's Dream" deals with the abortion issue, and "Big Boys" with what's going on in the Middle East.

D'C: When we get political we try not to get preachy about it. We sing what we feel about issues that incense us.

M2: Do you write the lyrics collectively?

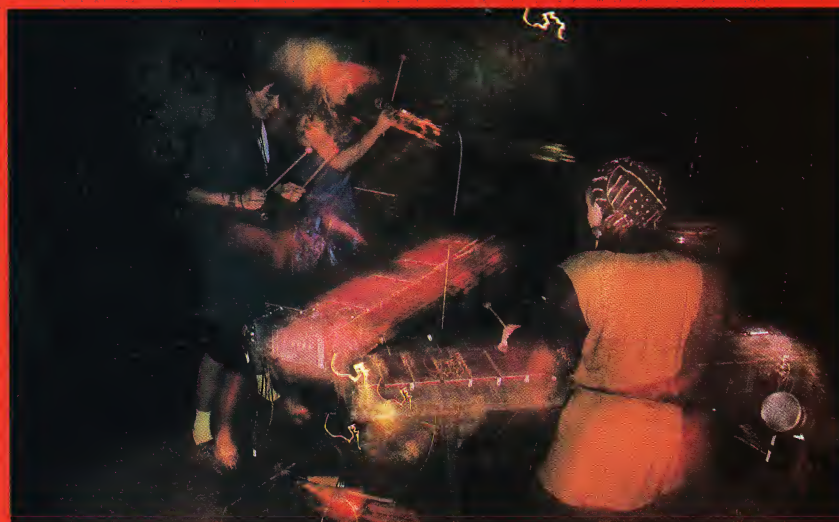
D'C: In fact, very collectively. We play—what's

that game where one person writes a line and then the next person doesn't get to see that line and then they write a line...?

D'C: "Exquisite corpse." Right, we take reams of computer paper.

D'C: What's different about our writing process is that the instruments and sounds that we have really help shape the music that we write. A lot of guitar-based or keyboard-based bands just write typical songs for their instruments. Often we'll just load a sound or call up a patch and go to the instrument, and that sound will inspire the music. So it's incredibly interactive. We don't just impose what's in our head on the instrument, we work *with* the instrument. Sometimes the sound will inspire the rhythm. Our sequencer does that too. Mistakes will happen depending on what patch is getting played.

D'C: With the sequencer I've gotten to the point where if something screws up, I listen to it before I do something about it. Because often it's very cool.



**We talked about making a
composite human, a digital puppet,
our "fifth member"**

D'C: Electronic music tends to be pretty cold and sterile-sounding. Because of our ensemble background, we bring all this spirit and soul to the music and it comes out even in our recording, even if you don't see us.

M2: The first stage of electronic music was really cold and sterile.

D'C: It's changed.

M2: First the technologists get into it, and then the artists come along and start to do something. It's really depressing to hear some of it now.

D'C: Sometimes we'll get other sounds played in the same rhythm.

D'C: A marimba track will start playing drum sounds.

D'C: Also, when people are jamming on different instruments, it really changes the feel of the music.

D'C: That's why we like to switch, because each one of us brings her own sensibility to an instrument.

D'C: We can't imagine being a band where you just play one instrument. We go and see bands now and say, "You're *only* the guitar player? They *only* play drums?"

SLEIGHT OF EYE, SLEIGHT OF BRAIN

M2: You've worked with the Biomuse system. Describe that. How you found it and what you did with it.

D'C: Well, at the CyberArts show, I ran into Ben and Hugh doing their demo. I was knocked out when I saw this guy trigger sounds just by flexing his arm. Then, when he panned the sound from left to right just using his eyes, I screamed. After that, Bob said to me, "Would you please move back?" The most amazing thing was when Ben had the headband on and he triggered the event with his brain wave, just by closing his eyes, focusing, and opening them. When he did that I lost it, and I thought, I *have* to meet these people. So I called up Hugh and we just started getting together with them. What we've done so far is get ourselves wired up using the arm band—just the muscle band—as opposed to the eye or the brain.

D'C: They're rewriting the software code right now, so that all four of us can use it at once.

D'C: So we can do "Big Mu," and it's like literally playing air guitar.

D'C: We're trying to keep it visible. If we're on a large stage, people won't be able to see us blinking, or our eyes moving, so we're sticking to the arm and leg bands so that the audience can see how we trigger the sounds.

D'C: We did it once for a Tokyo Broadcast System documentary. They brought a whole film crew to our studio and we did it for the first time on "Omni."

D'C: Bean had her jacket on and the electrodes were underneath.

D'C: So you couldn't see all the wires.

M2: Just pure magic happening.

D'C: She just emanates song.

D'C: I'm over on the side playing the keyboard saying, "Pay no attention to that woman." [laughter]

D'C: When we started this band and built these instruments, we had an incredible vision of what we wanted visually and technically. Virtual Reality and the whole cyber thing is so perfect for us because even though music is obviously first and foremost, we want to be able to play it on visually interesting instruments, and play with light and sound as well.

D'C: That was the original motivation for doing these instruments. It was a very visual thing. We wanted larger instruments because we were used

to playing these huge marimbas, and we wanted to be able to move around.

D'C: We want to manipulate light using *ourselves* as opposed to the equipment. We want to be able to manipulate images in realtime, while playing music.

M2: Have the sound and the images respond to each other and respond to your movements.

D'C: Exactly. We talked to people about making a composite human, a digital puppet, our "fifth member." That would be so neat, that could be our back-up singer. Imagine, we'd sing, and we could manipulate the "fifth member" from the marimba.

It would all be in realtime too, so we wouldn't have to worry about whether or not the sequencer was going to work.

D'C: We have a major fear of sequencers. We don't want to get anywhere near them in live performance.

D'C: So we don't. Everything that we play in live performance is live and in realtime.

D'C: Not tomorrow. *Realtime.* [laughter]

D'C: We also have visions of holograms, projecting ourselves out into the audience.

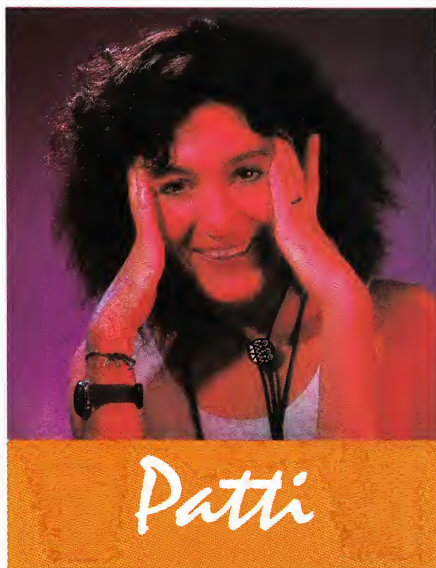
D'C: I really love the idea that we could be projected right in front of people. It's a new kind of 3D. We could be dancing with people as far as they're concerned.

M2: And everybody gets their own.

D'C: Yeah, gets their own D'Cückoo. After a while we wouldn't have to go to concerts anymore, we could just stay at home and do it.

D'C: Our puppets could take care of it.

D'C: We wouldn't have to waste all that fuel. We could just stay in one place.



RECTAL RITUALS IN JAPAN

D'C: We would love to be more in touch with our audience. Often you go out to perform and the audience is like, OK, entertain me now. I don't like that. I love it when the audience gets involved. Japan is great for that. They get right up on stage with you in the middle of the song and start playing your instrument.

D'C: Whenever they're posing for a picture, they put their arm around you while you're jamming away.

D'C: It can be dangerous, though. I smashed someone's hand because he leaned on my turtles while I was playing.

D'C: They knocked the conga over, grabbed microphones, and started singing with us.

D'C: They started singing "Yesterday" by the Beatles while we're in the middle of "Shona."

M2: In a Japanese accent.

D'C: For our last gig, we did this huge private party, and during the last song about forty people got up there with us and started hitting every instrument. They were playing whatever they wanted, in whatever key, and we all looked at each other and said, "Short version." [laughter]

M2: Nobody was taping this.

D'C: It was a total mess. We were trying to keep the song going, and there were all these people standing around. They just wanted to play. Tina was great, she always knew the right thing to say. We'd start out "The Ticking" by inviting somebody up, but then I never knew what to say to get the person off the stage. Finally, I tried "Thank you," and it worked like a charm. I'd say "Thank you," and they'd bow and they'd put the sticks down and they'd hop off. The magic word.

D'C: One of the funniest things happened the first night. We were playing in this club that we called the Red Velvet Lounge, and there were all these businessmen in the

BIOMUSE: THE BODY AS CHORUS OF ELECTRICAL NOISE

The Biomuse is a portable digital signal processing system co-developed by audio-physiologist Hugh Lusted and electronics engineer Benjamin Knapp, both of Stanford University. It's designed to provide a realtime interface between the electrical signals of the human body and any computer or MIDI instrument. This means the translation of biological phenomena into musical sound. The Bioelectric interface consists of velcro-fastened elastic arm and leg bands which read muscle extremity activity [EMG], as well as a headband that picks up eye movement signals in addition to several brainwave channels [EOG & EEG].

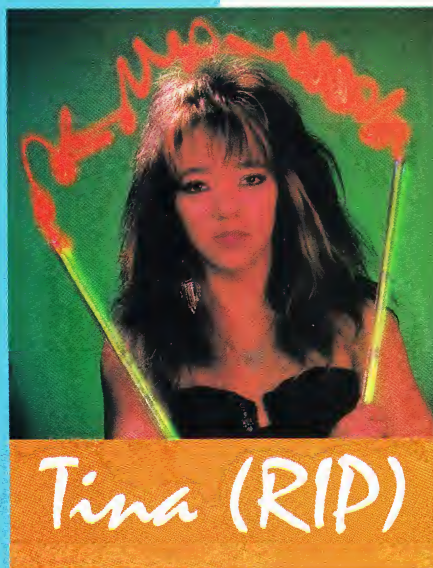
The ultimate aim of the Biomuse is to provide a general-purpose nervous system-to-computer interface. "Our ideal techno-artistic fantasy was to have a machine that would produce music directly from the brain—that is, you think or feel something and it's immediately translated into music."

D'Cückoo were interested in using the Biomuse as part of their stage show, during which Patti or Bean could "gesture" from their instruments and trigger some of their sampled sounds. "They were playing a couple of their regular songs, but instead of triggering the shakuhachi or the loon sounds from one of the marimbas, she triggered it from a gesture picked up by the arm band. They immediately incorporated it into one of their songs. They're wonderful to work with. They're familiar with the MIDI interface stuff and they've also experienced the prototyping frustration—getting devices running, working with them when they don't, and improvising in the moment."

Each member of D'Cückoo wished to explore different dimensions of the system. "Candace really likes the eye-movement aspect—she'd like to be able to stay at her microphone and pan the sound back and forth with her eye movements. Tina-the-drummer would like an easy way to do a kick from her heel. She's thought about putting a sensor on her heel so she could just tap up and down."

Other applications of the Biomuse include serving the aesthetic and recreational needs of the disabled. There will be more on the Biomuse in MONDO #5.

Jas. Morgan



men's bath right across from us.

D'C: These guys all came in wearing nothing but kimonos. They were drinking whiskey and having a good time. By the end of the show they started dancing with each other. They were doing this ritual. One of the guys was the Sumo Wrestler, the lights were brought down low and they took off their kimonos. The next thing you know, these guys were both dancing around naked with these burning incense sticks...

D'C: Chopsticks.

M2: Burning chopsticks?

D'C: In their butts, with plates in front of them. We were just sitting there with our mouths hanging open, in hysterics.

D'C: Her cousin is Japanese, and I said, "Nobo, what is this?" and he said, "I have no idea."

D'C: These people were from the South Island.

D'C: Kyushu, which is like Texas.

D'C: When you meet these people they say, "I'm from Texas," but they're obviously Japanese. So it's this red-neck thing, I guess.

D'C: We didn't know what to expect from the rest of the tour after that. The next night we're singing "Slice," and since nobody understood English, I changed the lyrics to "Please don't put no incense in your butt." [Singing]

D'C: We had to play an acoustic hello show in this hotel with the Taiko drum, the Conga drum, and vocals. We had to sing something different every night. We started running out of stuff, so we decided to sing the theme from the Beverly Hillbillies. Tina comes out, she's playing this really intense Taiko, and then we go into the Beverly Hillbillies. Candice kept messing up the line, "Oil, that is. Black gold, Texas tea." She'd sing "Texas tea, Black oil." They didn't come to the show that night at all.

M2: They were drunk?

D'C: No, they didn't like the theme from the Beverly Hillbillies.

D'C: The funniest thing was the Samurai Sushi they did before we'd come on. They had a huge, ten-foot-long fish, and three chefs would come out with these big knives. There was this little old guy with a microphone who looked quite benign. He was hiding behind the curtain, and when these guys plopped their knives he would yell, "Hayah! Hayah! Unhh! Unhh!" He was doing all the sound effects for the guys chopping the fish up on stage.

D'C: They had to clean the blood and guts off the stage while we were playing. We'd be playing in all these fish heads.

GETTING UGLY WITH ENO

M2: Let's talk about Brian Eno, since he'll see what you have to say.

D'C: He's in the studio right now working on a project that we're on.

D'C: When he came to the United States for a lecture tour to promote his new album with John Cale, he decided to throw together bands in every city where he'd been along the way. So when he was here, I ran into him.

M2: At Cyberthon, right?

D'C: Yeah, we were all trying on eyephones and trying out Sense8's chair, and I asked him if he had received our tape. He said he had left the country before it got there, so we dropped it off at his hotel in San Francisco. He

called us up about an hour after he was back in town and said that our music was really quite lovely. So we invited him to come over to our studio, but he had about three different interviews that day and wasn't able to come. The next morning, though, he called up about 8:30 and asked if we could be at Alpha and Omega studios in about an hour. Willie Green and Tony Hall from the Neville Brothers were there. We recorded about five songs in three hours.

M2: Were they his songs?

D'C: No, it was total improvisation, nobody knew what was going to happen.

D'C: He was just orchestrating everything from the side.

M2: Conceptual ideas too?

D'C: Well, we actually had a conceptual idea.

D'C: He had just come from doing an installation in Japan at the Toyota Factory, and had seen all these robots over there. He said, "Just imagine that these robots were built in Nigeria, what they'd look like." He had this concept of broken-down, African industrial robot dance music. We were the perfect complement.

D'C: "Ju-ju space jazz," he called it.

D'C: He just put us in a room and said, "If it sounds normal, it's not what I want."

D'C: We were actually a good bridge between Willie and Tony, who are incredible funk masters. That happy, southern funk.

D'C: They laid down killer grooves.

D'C: With sunglasses.

D'C: Yeah, we all had sunglasses on.

D'C: Then Dino [aka Jeff Dean] would come in and play, [*mimics choppy guitar riffs*] and Willie and Tony would be thinking, "What's happening?" We were the glue. We'd play some lush padding, and then a marimba part, and that would lock the whole thing together. It was a blast. Eno would be on the

side with his DX7, guiding it around. At one point, he actually said, "OK, for this tune, we have to wear shades. I've got a couple extra pairs, would you like some?" Then he started us off, "1-2-3-4." He would hold up these signs that either said, "Hold still," meaning he really dug what was happening, or "Part B," even though we didn't know what "Part B" was. He would just signal for "Part B," and we'd all start playing something else, having no idea what key anybody else was going into. He would also say, "Get ugly," or "Get slidey."

D'C: Tony, the bass player, got the ugliest. He was great.

D'C: Faces were making amazing contortions. I think Eno was happy when we left that day.

D'C: That was just an incredible experience. He's such a maestro.

M2: He likes to orchestrate in a very loose way.

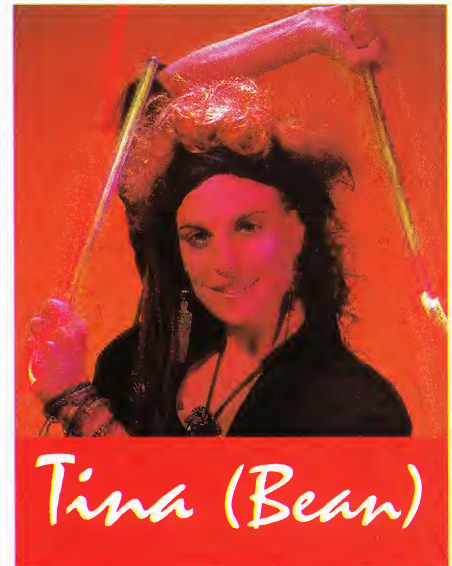
D'C: Yeah, he spent a lot of the session just groovin', just digging what we were doing. He was almost like our audience. He'd be dancing, doing the broken-down, industrial robot dance.

M2: Were you Eno fans at the time?

D'C: We've been Eno fans for a long time.

D'C: He wrote us a great letter afterwards thanking us for participating.

D'C: The funniest part was how he addressed the letter. He wrote, *Dear Tina, Tina, Tina, and Tina*. He called us all Tina the whole time. We had met him about three years ago under really funny circumstances. He was doing his



Tina (Bear)



Candice

installation at the Exploratorium, and Bean was in there looking at one of his sculptures and he was standing next to her.

D'C: He said "Get closer." So she moved really close to him—and then realized he was talking to the technician about the installation.

D'C: We did run into him later on and introduced ourselves. He had trouble with our names. We had a friend with us named Shalonda, and he couldn't get her name, and when he came to me, he called me Gandace. Finally, he said, "Why can't you all be called Joe, something simple like that?" That's why he calls us "The Tina band."

M2: Besides the large instruments and the body movements, what other visual aspects would you like to incorporate into your performance?

D'C: We're trying to expand. Right now we have Christmas lights in the marimbas. We're going to build some round, papier maché backs for the turtles and have them glow. We've also hooked up with this guy who does neon MIDI. We'll be able to trigger his neon through our MIDI.

M2: What do you see when you're performing?

D'C: The audience.

D'C: Black holes.

D'C: We'd really like to work with film and slide projections.

D'C: What we'd like to do is put screens on the front of the instruments. The instruments are very shallow, and it would be amazing to have screens descending to the floor so that it looks like we're in something.

D'C: We set up the marimbas at an angle. We could have screens come down and project film on them so it looks like the instruments are in something, or like they're moving.

D'C: We also want to play in the dark, and have our sticks or our bodies glow. So instead of seeing us playing, you'd see these stick figures playing.

D'C: That's an effect we'll be doing in our upcoming video.

light down from the ceiling. I mean, have a regular laser light show, but have a track to our mallets so that as we're playing you get this incredible light show. Or, we could rig the instrument itself so that when a note gets struck it would actually speak to the light rack and shoot the light down. That way, we wouldn't just be confined to the sticks, we could actually have light on us.

We could look like giant puppets, pulling light down. Anytime we'd do a dance movement, it would be accompanied by huge beams of colored light.

D'C: We like looking like us, like real humans, but it would be great to turn into something else and still be playing music.

D'C: The theory behind our art and video is transformation, and so we want to be doing something like that.

M2: Actually changing yourself, physically?

D'C: Transforming. Into each other, into other things.

D'C: We also want to start playing with 3D sound.

M2: Holophonics?

D'C: Yeah.

D'C: When you listen to those recordings, you get a tangible sense from just hearing something. We'd love to do that with our music, to surround people with it, have it be a truly three-dimensional experience.

D'C: We also really want headset mikes that stay on.

M2: Stick-to-head sets?

D'C: Exactly. We thought about having them implanted in our lips, actually.

D'C: We wouldn't mind, because we just don't want to deal with wires at all.

M2: That's a great idea.

D'C: Wires are out,



**Wires are out, waves are in.
The problem is where to put the
on-off button**

D'C: We've just acquired these plexiglass sticks that glow. We want to have them levitate down to our hands.

D'C: That's a contradiction in terms. Levitate *down*.

D'C: I like that—that we're just floating.

D'C: How about if we float down to the sticks? The sticks are already there and we come down. We'll chomp burritos from above.

D'C: I really want to be able to pull

waves are in. So the more direct it can be, the better. The problem is where to put the on-off button.

M2: It should just be magnetic. Sneer left, sneer right.

D'C: We want a whole studio like that, like in 2001 where you have HAL. It would be great for arrangement purposes. We could just speak to the computer and say, "Will you please arrange the song so we can play all the parts?" And it will just do it, and play it back so we can listen.

D'C: "I can't do that. I don't approve of this song."

M2: No, it would be "I'm sorry, Tina..."

D'C: "...I'm afraid I can't open the studio now." **M2**

D'Cückoo's self-produced sampler cassette tapes are available through Aisle Of Women Productions, 6114 LaSalle Ave., Suite 414, Oakland, Ca. 94611.

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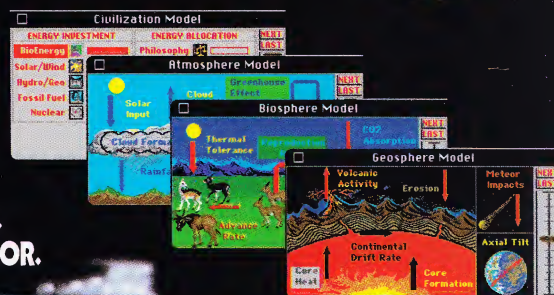
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Orpheus in the Maelstrom

Queen Mu

"I gotta tell ya', I'm waiting for the Nubians—the seeds, the pollen of Africa—the pantheistic deities. They're out there. They're lurking! The forces of Dionysus! ...It's time to let Dionysus and Pan break loose. When that starts to happen, it's going to be very scary for the Establishment."

—Ray Manzarek

"Eeeevil!" Ray hissed over the phone. "Oliver Stone's eeeevil."

Evil's a bit extreme, thought I. Maybe just an unwitting pawn? Ray Manzarek, I had heard, was feuding with Oliver Stone. Worse, he had been permanently banned from the set of *The Doors* movie. Sniffing a story, I managed to track down Ray by telephone.

Ray, I'd heard, was known as "Ray of the Desert." This intrigued me. As he vented his spleen about all the distortions and outright lies in the film, I began to understand. I got—in a flash—just how *galling* it must be to find oneself portrayed by Kyle MacLachlan. To see the mask out there permanently reified: obnoxious, sententious, self-satisfied. A bitter cup indeed.

As he frothed on—the froth was audible—I listened. The film I had enjoyed as a lightsome evocation of the 60's began to take on sinister overtones. I began to sense that there was something profoundly dishonest about this film.

Ray sputteringly called the film "a complete assassination of Jim." I'd thought he was exaggerating a tad. I'd made the assumption, along with the rest of movie-going America, that the film was an artistic reconstruction of Morrison's career as far as it could be historically nailed down. Sure, there'd be "cinematic license," but it never occurred to me that every single major dramatic incident in the film was the fertile invention of Oliver Stone. Were it Ken Russell it would be *understood*. But with the *cinéma vérité* style and the deft intermingling of Morrison's own film school project "Hobos in Eternity," one is left with the unshakeable sense that this is *practically* a documentary.

This is revisionism of the most dangerous and despicable kind. Who is Oliver Stone anyway? Who appointed him as the lens through which

we see Morrison? It's pretty ironic when you think that his experience of the 60's was just about diametrically opposed to Jim's—while Jim was eating mushrooms with the Mazatecs, Oliver Stone was signing up—for the second time—for Vietnam. Why now (as Eve Babitz asked in *Esquire*) does Oliver Stone love Jim? And what about Carolco?—the production company that brought us Rambo, Schwarzenegger and now *The*

then the real meaning and message of *The Doors* is suddenly apparent.

The Doors is like a medieval "exemplum." It's a picaresque tale that drives home a moral message. Mustering all the seductions of the music itself and our gilded memories, it uses the very power of that magical moment to subvert and betray its most powerful avatar. Forty million dollars was spent on production, and another fifteen

hagiography—the more disturbing because it masquerades as an act of homage. Oliver Stone admitted that he made no attempt to historically reconstruct his life—it was, he said, a "tribute."

And now we find George Will in *Newsweek* castigating Morrison as a pimply ignominious punk and moral lizard, citing the *invented* incidents in Oliver Stone's film, such as his locking Pamela in a closet and setting fire to it.

Far from a pimply pyromane, Morrison was the closest thing we've had to a modern day incarnation of Orpheus. His music celebrated the Dionysian and the Irrational—Excess, Passion and License. He quite consciously played the role and exulted in it. He shared with Rimbaud a certain messianic complex, a certain spiritual grandiosity. He was *not*, Manzarek adamantly maintains, a junky. Nor was he the callow youth Oliver Stone depicts, gonad-propelled and out of control.

His friends remember him reverently as a poet and genuine intellectual. In his own mirror, he was the trickster and clown prince. But ultimately he became the "pharmakon": the ritual scapegoat of the tribe and its sacrificial victim. (The word pharmakon in Greek means both sacrificial victim and drug.) Like Orpheus he harrowed hell for twenty years only to be resurrected in Oliver Stone's film and sacrificed once again to the Whore of Babylon.

A veritable Morrison industry has sprung up over the last few months. Mostly timed for the release of the film, a dozen books have already appeared. Old friends are airing their memory books. Academics are penning literary exhumations. And Albert Goldman is digging into Morrison's gender dysphoria and devouring-mother complex. It seems to be an inex-

haustable mine. Why the enduring fascination?

One of the fundamental tenets of Pop Eschatology is the notion that in the last days, in the End Times, the crypts will roll open and yield up their secrets. There have been a lot of crypts and a lot of skeletons over the past twenty years. But few as mysterious as Jim Morrison's. His grave at Père-Lachaise has become the successor to Lourdes for a generation.

Well, hearken all you literary sleuths and rock archeologists: the End Times are upon us! Is the world ready for the news?

Jim Morrison orchestrated his own death. Knowing its inevitability, he proceeded to shroud it in layers of mystery. How many people—besides *or even* Pamela—knew the truth?

Jim Morrison's death has remained a mystery for twenty years because it was shrouded in two separate layers of secrecy. The first layer is embodied in the Hippocratic Oath: "I swear by Apollo the physician... that all that may come to my knowledge in the exercise of my profession or outside of my profession or in daily commerce which ought not to be

**Rock out
too far, push
the limits,
trample on
taboo and
piss on
propriety,
and you too
will be six
feet under at
age 27**

Charles Rose



Doors? Why now does Carolco love Oliver Stone? And who are Arnon Milchon and Camelot Productions? (currently filming *JFK* in Dallas.) With what *The Doors* has revealed about instant cinematic "rewrites," we need to start asking questions—ideological, technological. (What kind of weird voice-meld did they do with Val Kilmer and Jim Morrison for example?) If, as some conspiratologists would have it—if Hollywood is merely the entertainment arm of the Ministry of Truth (aka the Prostitute of the World, the Whore of Babylon),

million on advertising—primarily bombarding couch potatoes with potent 60-second MTV-style blipverts driving home the message: "Rock out too far, push the limits, trample on taboo and piss on propriety, and you too will be six feet under at age 27."

Driving the message home to the very bosom of the nuclear family (viewing population 90 million) was perhaps an even more important agenda than the actual film itself. But the film has forever rewritten the Life of Morrison.

It has become the official

spread abroad, I will keep secret and never reveal." Dire consequences are promised anyone who breaks this oath.

Hey! No one wants to be expunged from the Book of Life. How many medical workers at UCLA knew that Jim Morrison was being treated for gonorrhea in the fall of 1970? Knew of the surgery performed on the primary lesion? Knew of the biopsy that confirmed adenoma of the penile urethra—often consequent to repeated bouts of gonorrhea? This is a particularly swift form of cancer whose only alternative may have been radical castration.

Three poems from "The American Night" tell the tale:

*Cling to life our passion'd flower
Cling to cunts & cocks of despair
We got our final vision by clap
Columbus' groin got filled with
green death
(I touched her thigh and death smiled)
An American Prayer, p. 4*

*"Trampled, like red-skins
sacred foreskin
Cancer began w/ the knife's
cruel blow & the damaged
rod has risen again in the East
like a star on fire."
The Wild Whore Laughs, p. 67*

and finally:
*Lost cells,
the knowledge of cancer
to speak to the heart
and give the great gift
words
power
trance
...
Could any hell be more horrible
than now
and real?*

*I pressed her thigh
& death smiled"
death, old friend
death & my cock
are the world*

*...
Sentence upon sentence
Words are healing
Words got me the wound
and will get me well
if you believe it...
I sacrifice my cock
on the altar
of silence."*

Lament for the Death of my Cock, p. 60

Could it be that Morrison kept his condition a secret from everyone—including Pamela? Cancer of the penis must be the ultimate in karmic diseases—just too exquisitely perfect for an incarnation of Orpheus. Jim must have pondered the sweet irony. He had a lot of time to think about his death—like Nietzsche.

The idea of one's own mortality is unreal at 27—not merely unreal but positively surreal. Death is the ultimate strip show.

In "Lament for the Death of my Cock," Morrison opens by addressing Death:

*Sore & Crucified
I seek to know you
acquiring soulful wisdom
you can open walls of mystery
strip-show*

He ponders the impact of his death:

*How to get death
On the morning
show
T.V. death
which the child absorbs
death-well
mystery
which makes
me write*

The mystery. Carefully preserved. Hidden in veils of literary allusions. Many pet allusions were to Nietzsche. *Thus Spake Zarathustra* was a favorite. "Die at the right time!" says Zarathustra—the right time being when you want it. A good death should be a consummation. A death that consummates is a death that validates the living, their hopes, their visions. Only such a death should be hallowed as the most beautiful of festivals. That is the best death, says Zarathustra, but "second to this is to die fighting and to squander a great soul." This seems to have been Jim's operative script, but he hadn't counted on the third and most hateful death—"the grinning death which creeps up like a

thief—and yet comes as the master." The "Slow train/death of my cock" was the cancer—he had perhaps six months to explore this mortal coil. Trips to a few literary shrines, the Alhambra, Morocco, and back to Paris to buy a double crypt at Père-Lachaise with Pamela (she may have thought it a romantic lark). Three days before his death they visited Père Lachaise together. About that time, too, Jim asked Pamela to teach him how to shoot up. Heroin may have been the immediate cause of death, but "auto-euthanasia" is a more apt description.

Twenty years ago, the true story of Jim's death couldn't be told. Nothing is more heavily tabooed in our culture than anomalies or pathologies of the male organ. He left a trail of literary clues. But until the full import of his death is understood, his death cannot be properly hallowed. Perhaps only now, on the twentieth anniversary of his death, can the mythos be celebrated.

I have spoken of Morrison, the enigma of his death, and two layers of secrecy. The second layer is even more arcane and more impenetrable. It is an initiatory secret that has survived millennia right down to the twentieth century. It involves the cultic use of sub-toxic doses of a venom long known to be a powerful stimulant of the cerebro-spinal nervous system. This venom derives from various species of *Tarantula hispanica* found throughout the circum-Mediterranean area. It is undoubtedly the most powerful alterant of body and soul known to man. It was a closely guarded secret known to priestcrafts and initiatory cults—particularly the Orphic tradition. It played a part in love philtres and was a key ingredient in the Dionysiac brew. It released the "duende" in Gypsy tradition—the dark soul that burnt incandescently like a cicada, immolating

itself in fiery passion. The fire, the passion—and in the end the prophetic vision that was the ultimate quest.

It takes a certain kind of person to break on through. Someone with vaulting ambition, a taste for heroics, and nerves of steel. Above all, someone with the shaman's call—the inner compulsion to impersonate a god and rock men's souls. Substances are of course *de rigueur*; whether the substance is a potent carcinogen somewhere down the line is immaterial.

In an earlier article (*High Frontiers* #3, 1987), I amassed a

Tarantula venom produces powerful contractions of the spine similar to certain ordeal poisons.) Morrison may have been turned on by Dylan himself. He and Nico hung out with Dylan and Edie Sedgwick at the Castle Hotel in the Hollywood Hills. But it is futile to trace the chain of transmission. In fact, this grand tradition, this ancient lineage, may go back to the primordial ooze. Readers of my earlier probe into this area will recall the evidence in "Tarantismo & the Modern Day Rock Magician." For those who missed this early foray, I will briefly recapitulate

He turned night into day. All his neighbors in Paris complained about his composing after midnight. His music was transcendent. But the toll on his nervous system! 'My cerebro-spinal nervous system has been under a magnetic spell for the past ten years' he wrote. A classic *poète maudit*, he aspired toward the Dionysiac—redemption through release. Considered monstrous and perverse by some, his work was canonized by a later generation. Burning the candle at both ends, he guttered out in Paris at the age of 27."

Sounds like our Jim, doesn't it?

Readers of my earlier work will recognize the type: the accursed poet, plumbing the depths, purifying his soul through successive stages of tarantula venom intoxication. The use of sound and music to heal the soul through catharsis. Sexual strutting and exhibitionism. Contortionistic body postures. Extreme states of emotional exaltation—the Agony and the Ecstasy. Supernal vocal control. Terpsichorean prowess. Heightened visual perception verging on clairvoyance. The poet as mage and diviner.

**Burning
the candle
at both
ends, he
guttered
out in Paris
at the age
of 27**



body of circumstantial evidence for Dylan's use of tarantula venom. Certain other rock magicians—Patti Smith, Tim Buckley—were venom initiates. The full roster of this elect and rarified breed is not known. Nor the identity of the Mephistophelean mastermind in the music industry who turned them on. (A clue: look at performers who have broken their necks and backs while performing.

some of the properties of this remarkable substance.

For the artist, tarantula venom is the ultimate in Faustian drugs. A drug that confers blinding poetic vision, inspired speech, sexual charisma, athletic grace—what better tool for the would-be rock magician? But the pact is exacting and inexorable.

Here is a typical case history: "He burned with feral ferocity.

the traditional witchcraft herbs like datura, henbane and belladonna, and spider venom. His entire corpus came out of a few years of feverish work culminating with that fateful summer where he took tarantula venom repeatedly in the family granary—the summer chronicled in *Une Saison en Enfer*.

A century later we find Morrison steeped in Rimbaud, writing Wallace Fowlie, the Rimbaud expert, that he carried his translation with him wherever he went. There's the oft-cited press conference where he said he dedicated himself, like Rimbaud, to a complete and programmatic derangement of the senses. Morrison, of course, was a devotee of acid and dabbled in deliriants like the over-the-counter "Asthmador." Asthmador was the closest thing you could get to witches' flying ointment,

The year was 1856. The poet was Isidore Ducasse, better known by his pseudonym Lautréamont. Lautréamont and his classic cycle of tarantula venom experiments, *Les Chants de Maldoror*, were taken up and practically divinized by the Surrealists. Breton and Soupault (both drop out medical students) were conducting similar experiments in *Les Champs Magnétiques*.

Lautréamont was the immediate inspiration for Rimbaud. Fired by reports of Lautréamont, Rimbaud ran off to join the Paris Commune at age 15. Little more than a kid—he was described as looking like a *voyou* or street urchin—he got a heady taste of *la vie bohème*—the homosexual hazing, literary cliques, and exotic hash concoctions coming through Marseilles. Yet Rimbaud was dedicated to the cult of the poet as seer or *voyant*. He applied himself to "a prolonged and systematic derangement of the senses." He used absinthe, of course, morning glories,

compounded as it was of stramonium and belladonna ("The green lady" Morrison called it). It was just one fateful step to tarantula venom.

The *locus classicus* for this cultivated derangement of the senses was the letter Rimbaud wrote his best friend Paul Demeny at the age of sixteen: "A poet makes himself a visionary through a long, boundless, and systematized *disorganization of all the senses*. All forms of love, of suffering, of madness; he searches himself, he exhausts within himself all poisons, and preserves their quintessences. Unspeakable torment, where he will need the greatest faith, a superhuman strength, where he becomes among all men the great invalid, the great criminal, the great accursed—and the Supreme Scientist! For he attains the *unknown*! Because he has cultivated his soul, already rich, more than anyone! He attains the unknown, and if, demented, he finally loses the understanding of his visions, he will at least have seen them! So what if he is destroyed in his ecstatic flight through things unheard of, unnameable: other horrible workers will come; they will begin in the horizon where the first one has fallen!"

And other horrible workers did come! Nietzsche carried on the tradition soon after. He used a Javanese soporific called "yauma" (literally, medicinal hemp) given him by a Dutch doctor friend. It was a polypharmaceutical preparation doubtless containing "the five poisons" as well as cannabis; Nietzsche boasted that he consumed twenty times the normal dose. He signed his letters "Dionysos" and "the Crucified One." Scholars have tended to see him as a political philosopher rather than the Orphic initiate he was. Nietzsche considered *Thus Spake Zarathustra* his most important spiritual manifesto. He fell under the spell of an eccentric German Mazdean adept in Leipzig in his student days—possibly his original source on the cultic use of tarantula venom in dervish dancing. Morrison got his model of possession states from *The Birth of Tragedy*. This book, on the Dionysian impulse, has been called "a philosophical roadmap to the Doors."

GROTESQUE. MONSTROUS. PERVERSE. Self-administering poison in order to achieve Orphic heights is a little unthinkable to the rank and file of us. "A man who would mutilate himself is well damned, isn't he?" cried Rimbaud in *Nuit de l'Enfer*. Rimbaud referred to himself as an

outcast, a pariah, a hyena; and the code name for tarantula venom itself, with Verlaine was "merde." Yet generations of students have been taught by effete pot-bellied lit crit types that when Rimbaud opens his classic and telling poem, *Nuit de l'enfer*, with the announcement: "I have just swallowed an enormous mouthful of poison" that he is being *somehow metaphoric*. "My entrails are on fire. The violence of the venom twists my limbs, deforms and

gloried in new powers and his own omnipotence. He wrote of great cosmic dioramas, of the suffering of humanity, as he wept he saw gold—and could not drink. His heart felt stabbed by grace—he had not expected that! He had that youthful unquenchable thirst for grand heroics: "to drink strong drinks, as strong as molten ore." And the overwhelming onslaught of emotions (a dopamine rush?)—"I may *die* of earthly love, *die* of devotion!" The messianic, the self-



**So what if he
is destroyed
in his ecstatic
flight through
things
unnameable—
other horrible
workers will
come**

prostrates me. I die of thirst, I suffocate, and cannot scream."

"I became an adept at simple hallucination," boasts Rimbaud. "I came to regard as *sacred* the disorder of my mind."... "At first it was an experiment. I wrote silences, I wrote the night. I recorded the inexpressible. I fixed frenzies in their flight," he wrote. He

crucifying, the all-compassionate. And finally the ravaged nervous system:

"My health was threatened. Terror loomed ahead. I would fall into slumber for days, and getting up would go on with the same sad dreams. I was ripe for death and my weakness led me down dangerous roads to the end of the

world, to the Cimmerian Shore, haven of whirlwinds and darkness."

Looking back on his summer season's experiments with venom, Rimbaud writes:

"I created all fêtes, all triumphs, all dramas. I tried to invent new flowers, new planets, new flesh, new tongues. I thought I had acquired supernatural powers. Ha!... I! I who called myself an angel or seer, exempt from all morality—I am returned to the soil with a duty to seek out, rough reality to embrace! Peasant!"

Morrison chafed and railed at the White Protestant American ethic—the maelstrom he called it. Television. Prescribed morality. The tyranny of fashion. He used his sexual charisma to open the well fonts of the Dionysiac. This, to him, was the true revolution.

Where was Oliver Stone for the true revolution? He was signing up—for the second time—for Vietnam. Eve Babitz wants to know "why anyone in the 60's would join the army, would go to Vietnam and become part of the war and murder and atrocity, when the action for Real Men was on Sunset Strip, the Lower East Side, and in San Francisco. Why did he join them, and why is he now in love with our Jim?" Morrison's old girlfriends are incensed. They write in from Chico, Petaluma, Mill Valley. Oliver, they scream, has it all wrong.

And me? I just wonder what a good Jewish boy is doing saying: "there was a Jesus quality about Jim. He gave of himself: his body, his life, his possessions. He was a sharing person. It's the Irish dichotomy, I suppose." (*Rolling Stone*, Mar. 91, p. 96)

Just how much did Oliver Stone uncover? There's an unaccountable lacuna towards the end of the interview. They're talking about Excess, sort of general-like, and suddenly Stone says:

"You need strong *cojones* to take

that medicine. You risk becoming larger than life. I guess you could become grotesque. It's a road to travel warily, no question."

Oliver Stone was defensive about his film. "Nobody's done a rock film about the 60's, really. I'm not trying to blow my own horn, but why didn't somebody do something about it? I guess I'm just the janitor. I'm mopping up at the end of the day."

A janitor with a forty million dollar check book. And a notable inability to flesh out the female psyche in all its infinite subtlety on the screen. Men may love Oliver Stone for his espousing all the right politics. Women are suspicious of what they see as a profoundly misogynistic streak.

Oliver Stone is all the more dangerous because he is perceived as on the right side of the ideological fence. As an "artist" he does not slavishly worship historical fact—the name of his production company is "Ixtlan Productions" (doesn't that say it all?) Tabbed perhaps by other forces—other forces with their own agendas—he is now "remythologizing" J.F.K.'s death in Dallas. Under the aegis of Camelot Productions, he is recreating the past based on two books: Jim Garrison's *On the Trail of the Assassins* and *Crossfire* by Jim Marrs. What axes are being ground here?

Propaganda is just one perversion of art in the totalitarian state. There are others. We are all heir to two quite separate traditions. No, not the Judaeo-Christian, but the Apollonian and the Dionysiac. (Nietzsche's formulation.) We are so enmeshed in this Western Civ mindset—the apotheosis of the rational and prudent, the Good Citizen—that we don't even recognize it. That old puritan fart, Plato, was the Jesse Helms of his day. The "spiritual ambiguity" of art—it's fascination with evil, its deep roots in the unconscious, its use of irony and burlesque were troublesome to Plato. He was worried by music and its profound

action on the soul—whole modes were banned from his *Republic*. Most disturbing of all were those artists and dramatists who swayed 30,000 people at a time. This personally galled him. (There seems to have been some professional jealousy here.) And he warned his followers: "Art gives magically-induced satisfaction to the lower part of the soul, and defaces beauty by mixing it with personal sorcery." Beauty and truth should be served at all costs. "Truth is pure and small and not extreme" while "Excessive pleasure and pain are among the worst diseases of the mind." In the *Ion*—an early work—Plato tells us that the artist's inspiration was a kind of "holy madness" and that the poet could not write unless he was totally out of his senses.

Yet later, as he became the arch-moralist and proto-fascist that we know in the *Laws* and the *Republic*, he prescribes the didactic use of art. Even children's games are to be controlled and music and song sanctified and made changeless "as in Egypt." The citizenry will be "compelled to sing willingly, as it were." He hated the theater—the great home of vulgarity, especially special effects and trendy showmanship.

In the *Philebus* he discusses the aesthetics of the Good State—pure colours, simple iterative mathematical patterns—"wholesome folk melodies, certain straightforward kinds of military music," "hymns to the gods and praises of good men." And more than once he dwells on the embroideries that would keep the women out of mischief. Mimesis or representational art was itself suspect—not to mention sophistry, magic and special effects, irony, burlesque and satire.

Plato's spiritual descendents are now in charge of the maelstrom—what Morrison called "the white Protestant maelstrom." Like Plato, they cannot reconcile the holy madness of the artist with his function as mediator. The artist, if he oversteps the bounds, has to be slapped down or publicly pilloried. So, the best artist is a dead artist—he can't talk back and he don't get no residuals.

Today, more than ever, we need new lyres for new songs. Our nation's soul is diseased. There's a reign of the Orgasmically Impotent across the land. Beware of State Philosophers! (Himmler loved Plato.)

They say Orpheus, after the dismemberment, kept right on singing. His severed head, bobbing on the waves, sang all the way to Lemnos. Like Orpheus, Morrison sings to us still:

*I want roses in
my garden bower; dig?
Royal babies, rubies
must now replace aborted
Strangers in the mud
These mutants, blood-meal
for the plants that's plowed*

*They are waiting to take us into
the severed garden
Do you know how pale & wanton thrilling
comes death on a strange hour
unannounced, unplanned for
like a scaring over-friendly guest you've
brought to bed
Death makes angels of us all
& gives us wings
where we had shoulders
smooth as raven's
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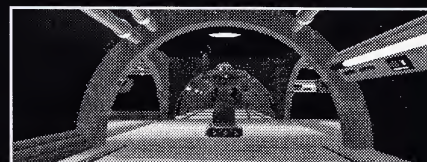
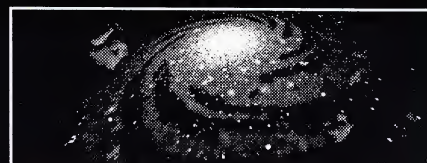
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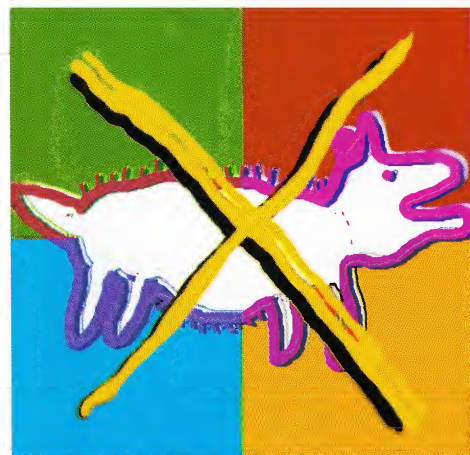
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CAVERNS

"In Xanadu did Kubla Khan

A stately pleasure-dome decree:

Where Alph, the sacred river, ran

Through caverns measureless to man

Down to a sunless sea.

So twice five miles of fertile ground

With walls and towers were girdled round..."

—SAMUEL TAYLOR COLERIDGE

Technology often seems a zero-sum game—paralyzing as much as it enables. Perhaps the best current example of this is the explosive expansion of what I call the Datacloud. We made computers to help us parse data, but they are really far better at producing it in raw abundance. Without much human intervention, they can spew data by the terabyte all night long. Consequently, the hard kernels of information (a product which only human judgment can produce) are increasingly obscured by a galloping fog of statistics, electronic detritus, and tractor-fed trash.

Human minds sort this mass at an I/O rate (for text) not much over 2000 bits per second, but they're stacked against machines which can produce it in the gigabaud range. The result is datashock: a glazing over of the critical functions, an abbreviated attention span.

A clear look at Congress, the members of which now have the attention span of gnats, leads one to conclude that datashock may be our most pressing national problem, but almost no one is addressing it.

No one, that is, save Ted Nelson. Nelson brought forth twenty-nine years ago a project called Xanadu, convinced that somehow it would encode all of human knowledge (!) into an array which we could then explore by a method called "hypertext." Not quite a fancy word for free association, hypertext would open for us thoroughfares of discrimination through the Datacloud, created by a variety of intellects. We could process it not with keywords but with known points of view.

A voice crying in Cyberspace, Nelson ranks with Doug Englebart, Alan Kay, and Marvin Minsky as both visionary and crank—if there's a difference. Nelson's magnificent theatricality—he was raised in Show Biz—predisposes the sober-sided toward the latter assessment, but there is generally a high regard for his ideas in the computer community.

His ideas, though, have been slow to be implemented—by Nelson or anyone else. Nelson would swiftly point out that Hypercard is the Crackerback-jox toy version of what he has in mind.

It now appears that Xanadu is about to ship product. And though its shrinkwrap will hardly contain All That Is Known, it will at least provide a storage medium and method for navigating it. Project Xanadu has become a subsidiary of Autodesk (the very successful and heterodox publisher of AutoCAD), which means that both Ted and his project have been getting far more robust support than in previous lonely years.

Autodesk provides the Sausalito office from which he operates and where I met him in January. It was a beautiful day on the Bay as we walked a short distance to his houseboat, squeezed through its stacks of file-boxes and miscellaneous stuff and made our way to the deck.

Ted's office and houseboat provide strong support for the theory that the great create general works to serve personal needs. If anyone has ever suffered under impenetrable data, it is Ted Nelson. Every cupboard in his houseboat carries a detailed label of its contents, but not

so collated are the tons of sedimentary printed matter which rise majestically outside those cupboards.

Out on his deck, things seemed less complicated. For three hours, we postured, speculated, fed seagulls, and enjoyed the sunshine. But I had a mission: I had been instructed by Mondo's two-fisted editor to pin Ted down both on a shipment date for Xanadu and some hard specifics about its abilities. Ted, however, charmed me out of that grim purpose almost immediately, as you will see.

—John Perry Barlow

An Interview with Xanadu Founder Ted Nelson by John Perry Barlow

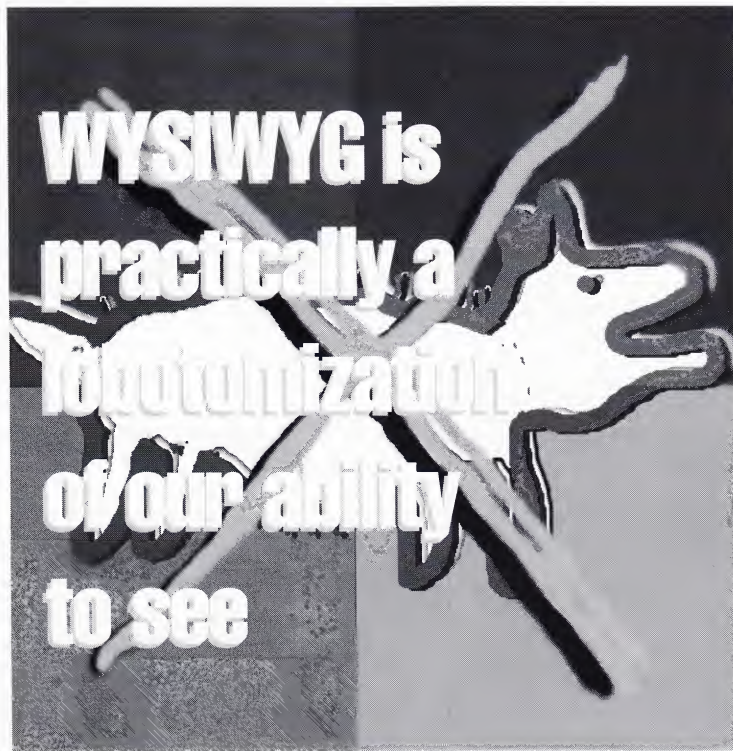
MENSURELESS TO MAN



Bart Nagel assisted by Heide Foley

MONDO 2000: Let's talk about Project Xanadu. Suppose that I'm a complete neophyte. I don't know anything about Project Xanadu. In fact, I don't know much about computers. What is Project Xanadu?

TED NELSON: [sighs] The idea is to have a common publishing repository for the writings of humankind. The Xanadu idea has many levels. There's a micro level, where we're dealing only with the material being saved and worked on by individuals and groups.



When we get to the publishing level, this takes on a new characteristic because people working on the material don't have to know each other. A published document becomes part of the universal repository that can then be accessed by anyone and to which anyone can make their own links. The radical notion of open hypertext publishing means that not only can your link reach into the original document it points at, but from that original document you can find your link. So anyone can publish a footnote to any book.

M2: What about the tyranny of categories?

TN: I've always felt tyrannized by categories. The answer is not to eliminate categories but to provide a means whereby categorization is recognized and becomes harmless—like celluloid overlays. The same material should be categorizable and recategorizable every different way possible by different people. We're speaking here in the context of tomorrow's publishing.

M2: But if you're going to get away from text—or expand your interaction with the immaterial world to include other kinds of information—how do you identify the non-textual objects without categorization or keep the fluidity of your categories from becoming stupefying?

TN: With Xanadu, anyone can create a new system of categories and recategorize everything in the system. Or anybody can create links to the material in a way that you don't have to go by categories, you just follow the links. And the links don't have to apply any categories or structures.

M2: The big question for the new economy is how people will get paid for intellectual work. Can you talk a little bit about intellectual property in the context of Project Xanadu?

TN: We have the most sweeping proposal for automatic royalty that anybody has come up with. Specifically, whenever anything is ordered by and sent to a user, the user pays an automatic royalty to the publisher of the document through the user account. And the user can send for any collection of bytes. ...You pay by the byte for whatever is sent to you, and once it's been sent to you, you own it. And the system will work only if the price is low.

M2: Will you let the price per-byte float, based on demand for access?

TN: Well, I think there are some obnoxious things about that. You don't want to read a portion of a book one day and come back to it the next day and find it's changed price. See, my notion of Xanadu is that it's your private library. You can leave your bookmarks everywhere and

know the library is yours in the same way that the public library downtown is yours. But with far greater accessibility.

M2: There's a strong bias within the computer community that any useful information should be completely free and liberally distributed.

TN: Right. And I think information *is*—or should be—entirely public domain. But certain particular representations of that information can be protected by copyrights.

M2: Xanadu seems to be proposing a solution to the current copyright conundrum.

TN: Yeah, well, if the stuff is cheap enough and the delivery from the authorized source has enough added benefit, I think we can have a win-win situation.

M2: There are a lot of people out there who believe that Project Xanadu is smoke and mirrors. SO WHEN DOES IT SHIP, TED?

TN: Supposedly this year. And I'm not in control. I'm the outside man. I just visit down there now and then. And the single-server version is

supposedly going to be a fourth quarter product for Autodesk. Autodesk is certainly making it an important part of their plans.

M2: The single-server version would be tantamount to a database.

TN: Depends on what you mean. See, the term database has such a precise meaning in the field that there's a hesitancy about acquiescing to it. If you take the words data and base, it's clearly a database, but in the sense of having the kinds of manipulations we ordinarily associate with databases, it's quite different. This is a system of recording. The best way to look at it is as a system for delivering fragments from a document pool, or delivering fragments from a pool of virtual documents that can share material and have links. And those documents can be undergoing constant alteration and yet the fragments can go back to any previous version in time, and the links are maintained not merely in the current version but in the previous version if the document owner choses to do so. So we're figuring out how to save it no matter how fast it changes and then save all the stages and the connections.

WRITER'S HYPERBLOCK

TN: I started Xanadu 30 years ago thinking I would have this system in six months. So I started saving notes on the assumption that I would be able to use it as my principal writing method. So I now have 2 million notes hanging in fragments awaiting input. But that's my personal problem.

See, what I wanted to do was create a hyperblock of all my own writings, each fragment in the order in which I thought of it and then woven through successive versions to the finished pieces.

M2: I think that people who undertake great endeavors are usually motivated by their own singular set of problems. And if anybody ever needed Project Xanadu, it's Ted Nelson.

TN: No question!

M2: I've heard legends about boxes in garages that are no longer on your map.

TN: I'm very eager to find out whether my photos from the 50's still exist. I became a very good photographer when I was still in high school and those pictures have great sentimental value.

M2: When's the last time you laid eyes on 'em?

TN: Approximately '78. The problems of maintaining a collection of this size are enormous.

THE SELF-EFFACING MEME

M2: You've said that you don't like the idea of memes.

TN: First of all, I admire Dawkins very much. And his book *The Selfish Gene* stimulated me greatly. My new theory of the social sciences is very much based upon his way of thinking. But memes... the dispersion of ideas, their spread, their peculiar "genetics" are simply not like those of the gene.

The gene is an extremely precise little beast that retains its identity and spreads its daughters everywhere with very little change. Whereas when ideas spread they mutate in the extreme. I do think we should pay more attention to the structure of ideas as they are. This is what my work in philosophy is about—the structure of ideas. The piece I just finished for the hacker conference called "General Schematics: Introduction to the Terminology" deals with this.

M2: I understand your objection, but one of the nice things about metaphors is that they're extremely flexible containers. And, in that sense, I think there's a powerful quality to the meme metaphor as it addresses the high granularity interaction of things and their propagation. I mean,

I agree with you that ideas are a lot squishier than genetic coding. Every idea finds a new identity and shape in another mind every time it's compressed, decompressed out of ASCII and into its mental form...

TN: Nicely put! My next major campaign seems to be against metaphors. I really dislike what has happened with so-called metaphors in computing. And on the Macintosh...

M2: Those aren't metaphors. They're methods.

JUST CLICK TWICE ON THE RUBY SLIPPER

TN: If you look at the Garbage Can and the Clipboard on the Macintosh—given their names and their behavior, I would submit that they're metaphors. And very bad ones. The Macintosh psychology is built around cluttering the screen with a lot of icons that have diminished serviceability, excessive vividness, and fill up the screen. You've got the Bird's Nest. The High Button Shoe. The Frying Pan. The Yo-yo. You've got to figure out what they're for—or what they meant to the person who programmed them! We'd be much better off if you didn't have an implicit comparison to start with. To me, getting away from metaphors and designing abstract spaces is the principal desideratum. In my next software suite—or rather the software suite which I've been working on now for over a decade called the Hypergrid or Zig-Zag Hypergrid—there *are* no metaphors. It is a space.

M2: You just used a metaphor.

TN: No. Space is a technical, mathematical term. The fact that 3D space happens to conform to the more general notion of space is a fact about space, but it's not... to call space a metaphor is regressive.

I never distinguished between technics and poetics. I've always assumed there was a continuum,

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and this is one of the things that has gotten me in trouble with a lot of people. I'm a monist. I refuse to acknowledge any dichotomy.

M2: [*East Indian accent*] Oh, but all is one—we know this. [*laugh-ter*] There are no divisions.

TN: No that's not actually true. I'm a contrarian.

M2: I'll say.

CONTRARIANISM

TN: When other people make dichotomies, I insist on monism. When other people are monists, I'm a dichotomist. When other people are intuitive, I'm analytic. And when other people are analytic, I'm intuitive. It works every time.

M2: Well, let me ask you this... Let's suppose that metaphors are inherently limiting and dangerous. What kind of container do you propose for meaning?

TN: Oh, all right. Look: we have cognitive structures. And what we want to do is fix or change them and ship them back and forth. Words have been more easily portable than pictures till now, so we've become diagrammatically illiterate at the same time as we've become very good at words. This is unfortunate. I grew up loving diagrams like the ones in *Time* and *Fortune* magazine. I think bringing diagrammatic literacy back is absolutely vital.

M2: But don't you think that words, in the compression process and the abstraction from experience itself, eviscerate that experience?

TN: I've never felt that way at all. Words badly used, words bureaucratically used, words euphemistically used, do exactly that. As a kid in school, I was keenly sensitive to euphemisms used by authority. Seeing through them and trying to find out what's behind that screen is a vital part of being cynical towards authority. And I think it helps us to understand the people who have been

taken in by authority. I think they love the words and that certain way of using them.

I believe that every form of expression is legitimate for the same reason I hate WYSIWYG (What You See Is What You Get, pronounced "Wizzywig"). We need many ways to visualize our information. And WYSIWYG, by restricting us to one visualization that comes out on the printer—using the computer as a paper simulator—is practically a lobotomization of our ability to see. That's why the Xanadu ideal of megapluralism is at my religious core. With Xanadu, all viewpoints can be expressed simultaneously in parallel with respect to the same raw data, which retains its integrity.

To me the software issues are a part of much greater issues that have to do with cognition and theater and the future of the world—and people are saying, you know, *what's the appropriate metaphor for a deletion*.

THIS IS REALLY SPATIAL

M2: You bring up an interesting point about spatiality which I've tried to wrap my mind around. The WELL (the Whole Earth BBS), or a voice mail system, has a spatiality which is non-physical. There's a sense of social dimension. If you're on a conference call, you've got another sort of cyberspacean experience.

TN: It is a virtuality.

M2: And it's interesting, you know, we have the spatial experience without the models to go along with it. As a consequence I can go around and tell people that when they make a telephone call they're in cyberspace, and they're sort of shocked because...

TN: They're in an abstract space which is different from free space as we know it. On a conference call you have a space which is defined by three points talking to each other.

M2: Or any number of points. And where they get together is a new place.

TN: OK, so we're communicating here, that's great, 'cause a lot of journalists have an awful lot of trouble with these ideas.

M2: Well, it helps to experience it. You know, it has some of the qualities of sacred space—particularly ineffability.

EFFING THE INEFFABLE

TN: What would it be if it were *effable*?

M2: Well, it would have a language attached to it that describes it in terms that anybody could understand.

TN: OK. So basically ineffable means irrepeatable and only...

M2: Indescribable by conventional methods of description.

TN: Although—what is this alleged South American drug that allows people to see the same images simultaneously? Queen Mu would know.

M2: Hmmm. Not ibogaine. Ayahuasca. Yeah, that's it—sounds like some place in Ohio. [*pause*] You're not actually a code hacker, are you?

TN: No. Never was. I considered myself a philosopher/filmmaker when I got to graduate school. But I also had the suspicion I would make some fundamental contribution in a field that hadn't been invented yet. So I was like a cocked gun ready to go off when I took my first computer course—I said, "My God, this is what I've been waiting for!" The timing was too perfect, too full of theatrics and abstraction. And I had a very broad base in both.

M2: I am constantly surprised there is this profoundly alchemical technology being created by people who generally have little philosophical depth—who lack a real sense of the implications of what they're doing.

TN: Basically the implication they see is that wogs like them who can handle a lot of complicated buttons will be able to do it twenty times faster.

M2: But do what?

TN: Yeah! And so my notion is creating a new virtuality of the world. By the way, virtuality is an important term to me, but let me be very precise about what I mean. See, I've been using the term for 10 years and I feel a little encroached upon by the Jaron Laniers—

M2: You should feel honored.

TN: ...Virtuality, as far as I'm concerned, is the construction of abstract worlds.

M2: Yeah, well that's exactly the meaning they give it.

TN: But not necessarily 3 Dimensional. Not necessarily spatial.

GROWING CULTURES ON YOUR NEW MEDIUM

M2: I think there's a problem with canonical VR in that it seems bound to shaded polygons and head-mounted displays. I don't hold Jaron accountable for that—it's what other people have made of it.

One thing that he has right is that cultural familiarity is important. If you move into a completely new realm, where your cultural and physical antecedents don't apply, you should set out right away to mediate the familiar. You can do this by some fascistic imposition like the Macintosh interface, or you can create a medium in which *culture can develop very rapidly*, which I think probably is more like what you're talking about.

TN: Again it's my cinematic model. To me software is an extension of self. In a movie, you have a virtual world that is created by many pieces under a common direction—a unified conceptual framework presenting ideas to the mind and the eye of the beholder. In software you're creating a unified conceptual idea for the mind and heart of the beholder with interaction added. The decisions, the design decisions are not decomposable and not delegated.

M2: But you do a lot of definition on the nature and limit of that interaction.

TN: What I'm saying is that... Yeah.

THE CARTOON BEAR PARADIGM

M2: Do you still ride a unicycle?

TN: I was under the delusion it would be a practical vehicle.

M2: Being compact.

TN: Yeah, it was minimalist. It seemed unencumbered. You know how the young seek to be unencumbered. I'd seen Bongo Bear in Walt Disney's *Make Mine Music* zipping around and figured if he can do it, so can I.

M2: He had a major advantage though: he was a drawing. He didn't have gravity to contend with.

TN: I got to where I could carry a notebook—but never a briefcase, because it had to be rigidly held in my hand to keep the balance. But I did actually use it for transportation at Harvard. And I still have it. Where the fuck is it? I haven't seen that unicycle lately!... Yeah, I guess the unicycle's gone. **M2**



...I would build that dome in air

That sunny dome! those caves of ice!

And all who heard should see them there

And all should cry, Beware! Beware!

His flashing eyes, his floating hair!

And close your eyes with holy dread,

For he on honey-dew hath fed,

And drunk the milk of Paradise.



The Carpal Tunnel of Love

LET'S ASK MR. SAENZ

MONDO 2000: What are you doing now?

MIKE SAENZ: Well, Reactor, Inc. is just taking off. Lots of stuff is happening. We're working on Virtual Valerie II: the Cyberoticon now.

M2: Been doing comics all your life?

MS: Since my late teens. As a teenager I experimented with every available medium, including 16mm film. But film is expensive. Comics were a cheaper form of moviemaking to me—paper movies. I got my first professional work in comics when I was 18.

M2: What was your work like then?

MS: It was that every-panel-a-painting style, but cyberpunk. Punk rock was a big influence on me when I was younger. In the early 80's I was a club kid, did some DJ-ing, spinning records for booze. That and the comic books—it's a hip thing to do when you're 20. *Shatter* came later.

M2: We all went crazy over *Shatter*. Computer comic art: this was clearly the future.

MS: *Shatter* began in January of '84 when I got my first Mac. At the time I was a TV ad storyboard artist, trying to get out of comics—no more lousy money and bone-headed publishers. I was hoping to computerize the brain-damage gruntwork—you know, John Public at his breakfast. But the ad agencies didn't go for the computer output—it was prehistoric Imagewriter, too crude. But I had a brainstorm. Eureka! The first computer comic book.

I could draw good and fast, I had something to say, I was a comic pro. But by the time I got a publisher, I was so broke my power got cut off, and there I was with a Mac on my table, by candlelight. So, well, I ran extension cords down to an outlet in the

hall. I worked only at night, all night, so no one would catch me..

M2: You seized the power to do *Shatter*?

MS: I was just desperate to get it done. I took a month to draw the first issue, but I'd spent some months rampin' up to speed, learning to draw with the mouse.

M2: What program did you use for the drawings?

MS: MacPaint. I did *Shatter* on a 128K Mac back in the days when 400K floppy

MONDO's gone On Line, so we know how it is. After prime time, wild night is calling—over the wire. You sign on, slip into your gaudiest screen name and cruise the public rooms of cyberspace, looking for the action. Is there a HOT TUB tonight? How about setting up your own sitch and waiting to ambush your selected prey? SUBMISSIVE WOMEN is a fave, or SUBMISSIVE MEN or LEATHER FANTASY. Last time I checked into SUBMISSIVE WOMEN, though, there were no women and seven guys, hovering, heaving, hoping...

There was no crisis in the GREY room when I blipped through, but the public dialog box is not all that's happening. Instant messages flash through the vapor—visible only to the recipient, and sometimes a self-described perfect stranger will inveigle you into a private room...

Beware! That wild-haired nymphet in the black leather corset may have more on her mind than laying stripes on your virtual back. "She" may be, in fact, hetero male Mike Saenz, standing in for Virtual Valerie II—she's back, she's meaner than ever, and she's collecting scenarios for her next CD ROM!

Does that tip an iceberg into your cyber hot tub? Not mine. I'd like to see my fantasies served up on a CD, interactive-like. And if that's actually Mike Saenz clapping on the handcuffs, so much the weirder. It's always impossible to tell for sure the sex, age, color or even species (there are cats here) of the person you're accessing. In the

super bulletin boards, pure imagination gets you everywhere: you cobble up your very own (if very virtual) Virtual Reality. And—just look around you—the dominant pursuit seems to be sex. This is precisely what Mike Saenz predicts for any reasonably free new medium.

—Jeff and St. Jude

Virtual Sex with Mike Saenz

an interview by
Jeff Milstead & Jude Milhon

disks were \$5 apiece and hard to find. Laser printers didn't exist. I had no scanner. I get really rankled when people accuse me of scanning *Shatter*. The entire thing was drawn with the soap-on-a-rope, the mouse.

M2: I admire that, operating under such horrible constraints. It's like working in woodblock, where you have to fight your limitations.

MS: Yeah, but consider: drawing a splash-page direct with the early MacPaint was like drawing with a pencil up your ass while looking through a pipe. Still, there's a distinctive look to direct-to-screen graphics: sort of crispy.

Shatter came out in 1985 and sold 100,000 copies. I never made much money on the deal. When I quit the book they hired hacks who scanned these wretched drawings into the Mac, and the publisher kept using my name. I got shafted. I was a greenhorn in those days—I just wanted my chance to kick some butt.

MAKING LOVE, NOT WAR, GAMES

M2: I just looked at *Shatter* again and yeah, it's art. How did you make the transition to *Virtual Sex*?

MS: Well, comics are terrific but they're static. I started animating and programming in 1985 because I knew CD-ROM was comin' up. I thought of creating an interactive comic book for it, but I realized that's stupid—it's an interactive movie.

Making fictional stories interactive is a challenge—interaction can derail the story if you're not careful. And look at interaction in simulation: most games are performance tests—violent performance tests. Most look as if they've been programmed by sadistic nerds—this is largely because they were.

I wanted to create a non-violent interactive simulation that a user could enjoy simply for the experience. I needed some form of redundant animation that could fit on a single floppy, that had high entertainment value—something a user wouldn't get bored with immediately.

M2: Redundant yet somehow engaging. Like sex.

MS: That's it. That rutting aspect of sex. This was *MacPlaymate*, and the rest is cybersex history. Underground comics were a big influence, of course. Woody Allen's *Orgasmatron* in *Sleeper*. Tijuana bibles. I was fascinated by the novelty ads in comic books. X-Ray Specs—the Buddy Holly from Hell with a foot-long tongue, goggling at a prom queen's panties—you know the one.

M2: But there was a more direct influence, mmm? You told us about...

MS: Yeah: okay, I'll tell. I was kind of a street urchin growing up in Chicago, and along with bottlecaps and firecrackers, we collected torn, soggy pieces of porn mags. And one day—I must have been only 6 or 7—a friend of mine said, "You gotta come over to my place: I've got a Boner Machine."

I had a *wild* imagination as a child: I imagined this greased-up, heavy-industry fuck device. And it was just a kind of flowchart collage—greasy little snippets from beaver magazines plastered on his wall. So I'm

thinking, this is it, the Boner Machine? Shit, I could build you a Boner Machine... The idea then went dormant for twenty years.

THE MAC OF MACS

M2: *MacPlaymate* stirred up some stuff.

MS: It did. We rented a booth at MacWorld to sell the program. The response was overwhelming—I realized I was onto something. The second day the Vice Squad came by and gave us a firm hand-slap and said: We can run you in, we can confiscate all your

per minute. But that got occluded by this image of my Mac as a hooker with me in the role of...

M2: Cyberpimp.

MS: Exactly. This got in the way of the fun I was having: I wasn't prepared to become the Bob Gucione of software. I didn't follow *MacPlaymate* with anything sexual until years later. I wanted to leave that for when I was feeling more sexy about it.

M2: Ah, but *Virtual Valerie*...

MS: [*sings*] ...she's your cybernetic fantasy! *Virtual Valerie* came near the end of a long slog—Manhattan to Marin and eventually back home to Chicago. When CD-ROM came I dove into it—I founded REACTOR and put out *Virtual Valerie* in six weeks, working 72 hours a day.

M2: A full-color *MacPlaymate*?

MS: With Virtual Reality aspects, 90-degree turns, navigating through the 3D space of rooms, etc... but the sex bits could be better.

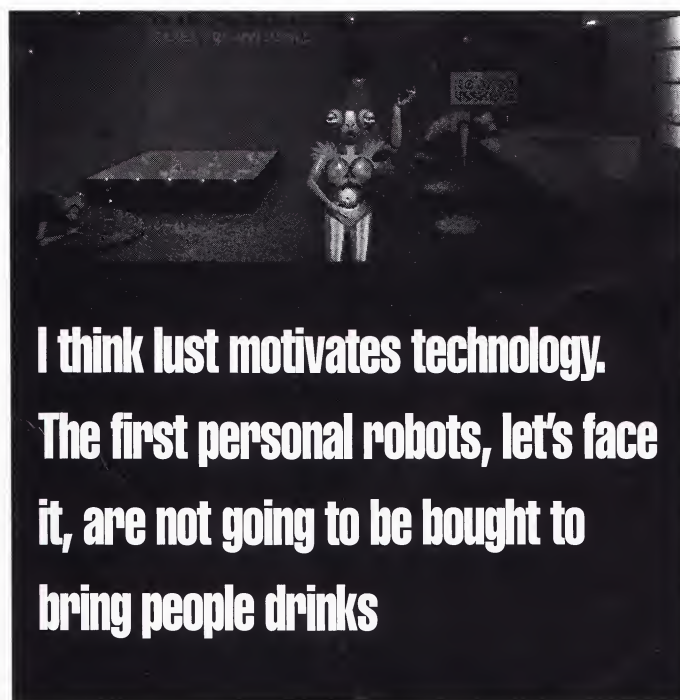
M2: You said it blew your credibility as a sexual being.

MS: Yeah, people are starting to think I'm not such a sexy guy anymore. See, Valerie's world is so detailed that it became this huge project, and by the time I got to the sex, I was, you might say, fucked out. We've had complaints that people are getting Carpal Tunnel Syndrome from trying to please Valerie. [*much laughter on all sides*] *MacPlaymate* got a lot of fan mail and much of it was requests for particular kinks—bestiality and fetishes and on and on. Valerie's on CD-ROM, so if I tried to put in every kink I'd still be hacking away at it.

VITAMINS, CIGARETTES—AND THE HARD STUFF

M2: You're a perfect fanatic—work night and day. Heh, how DO you do it?

MS: The hard stuff—peanut M&Ms and Jolt Cola. I kinda got Bill Bates hooked onto that when I was livin' on it, when we were doing *IronMan*. It was that or



I think lust motivates technology.
The first personal robots, let's face
it, are not going to be bought to
bring people drinks

hardware because this is a violation of certain uh, penile codes. Finally, all they had us do was turn the Macs away from the audience. We were allowed, however, to invite them into the booth to interact with it.

M2: Step into the booth, gents.

MS: Yeah. Wink, nudge. And I didn't know how to deal with the guys who thought I was some kind of sex fanatic. We sold so many *MacPlaymates* that we ran out of packaged product. We bought blank disks from the exhibitor next to us and sold them as fast as we could copy them. Now *this* was desktop publishing, at fifty bucks

speed, and we didn't want to get into drugs.

M2: Jolt and M&Ms! Classic nerd!

MS: From punk to nerd. I called myself cyberpunk brewster.

M2: That's just terrible.

MS: It is terrible.

M2: You have suffered.

MS: Hey, I had a couple of bouts with the Mouse Arm. Carpal tunnel, repetitive stress syndrome—I think I had 'em all rolled into one. Excruciating. I started taking vitamin B-6 like mad. I've been taking it ever since, and I've been able to keep it away.

M2: Have you ever been censored?

MS: I've been censored on a number of projects. The two best things about having Reactor is that I no longer have to convince a publisher that my ideas have value—and I don't have to tolerate censorship.

I really despised my censors, but now I realize they can't be directly faulted; they just toed the fucking line. I see Apple as the culprit here; it's their platform—their anti-entertainment stance. They think it makes their machine look like a toy. And it is a toy. It's also a tool. It's a toyol.

M2: The best.

MS: Exactly. I think I've personally met 10,000 people at trade shows who've said that Maxie [*MacPlaymate*] was the main reason they bought a Mac. But management in big corporations don't like employees playing on company terminals. You can imagine how they feel about them running programs that are moaning and making wet noises...

M2: Look, I work in a place where people are playing Tetris half the time. This is not about

people playing games—it's about having fun with sex.

MS: Right. Sex is serious business—that's a problem people have in this country. Laughing and sex get your natural endorphins pumping and that's good for you. But I'm not trying to sidestep the whole thing. Porno is geared mostly for men.

M2: Women are getting their own, now. I thought *MacPlaymate* was funny—not disgusting...

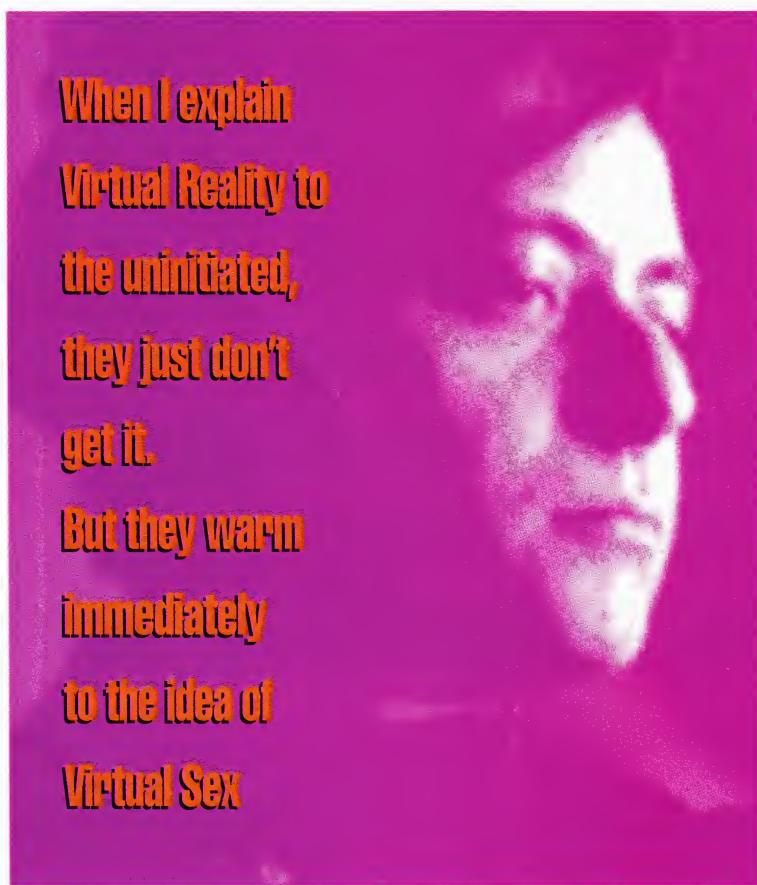
MS: My work is never done! But I think it should be designed to be

what it is today, and I think Virtual Sex will do the same for VR. Virtual Sex is also easy to understand. When I explain Virtual Reality to the uninitiated, they just don't get it. But they warm immediately to the idea of Virtual Sex.

Actually, VR has no interest for everyday people unless it deals with telepresence in a practical way—so users can actually affect the real world—or presents a superior stimulus. A good sex simulation would be much more fun—and more thought-provoking—than a flight simulation.

M2: Do you visualize a line of X-rated software?

MS: I have a silly idea for one called Strip Teacher. She goes, "Tell me the name of the thirteenth president of the United States and I'll show you my tits." I'd also like to see a utility called Donna Matrix who periodically appears on your screen, cracks her whip and says "Get to work, you gutless turd!"



M2: Valerie is tough: she makes you get with her program or she boots you out—literally.

MS: Really that's what it was about—an electropuppet more in control of you than you were in control of her. That's because mostly I see computer users as control freaks who love sex puppets. Some people get the point, see the wry commentary.

I think the software might concentrate on idealized characters with impossible characteristics. A bizarre kink? No problem for Maxine Headroom! If a real person did this, she'd break her back. Chip Rambone the cyberstud has a schlong that is the equivalent of a swiss army knife, and he does things with it that would kill the nonvirtual man instantly. This can be a whole new genre.

INTERACTIVE MADONNA!

MS: We're seeing more sex in popular cinema these days and women's romance novels have become flat-out sex epics. But most

porn flicks are still too sad to watch. On the upside, Madonna's "Justify My Love" video is giving mall queens everywhere an education in erotica—they're growing up on Helmut Newton, Frederick's of Hollywood, and cheese porn. Weird. I'd like to do an Interactive Madonna. It would be a blockbuster. Madonna, if you're reading this, give me a call. Let's do this thing.

M2: There's an increasing demand for intelligent porn.

MS: Absolutely. Sexual material has been flooding electronic bulletin board systems for years. PhoneSex is bigger than ever, but that's just the beginning. In the future, video phones will give rise to live TeleSex. It will be huge.

And there's always talk about bringing Marilyn Monroe back

more balanced—real cyberotica, male, female, homosexual, whatever. This is our chance to create a whole new form of erotic art.

M2: VR may help liberate porn. Prestigious, fully-rendered works...

MS: Absolutely.

PLAYING A PORN TAPE ON YOUR NEW VR

MS: And very practically, porno is what made the VCR market

digitally, and Bogart and Elvis and all. And I say put 'em in a porn movie. I say put young Brando and Elvis and Marilyn in a 3-star sex sandwich.

M2: It sounds like you've gotten your virtual lust back.

MS: We'll see how hardcore I get when I actually start movin' that mouse. You know, somebody came up to my *MacPlaymate* exhibit and said, "Hey you can't show this: this is pornographic." I said, "No, it's not: it's just bitmapped."

TECHY-FEELY

M2: What about telepresence, and things like tactile force feedback?

MS: Well, okay, let's get techy! In the future, a complex fabric of sensors—perhaps a membrane that simulates skin—could be clad over sense organs and used to digitize sexual and sensual touching. This tactile data could correspond to the recorded visual data and stored together on the delivery vehicle—say, a chip. The user would utilize a disposable or washable peripheral sex device linked to the computer and... oh Christ, let's not get into it.

M2: Oh yeah: forget the data glove.

MS: Yeah. When I saw the data glove I was like, yeah man: but you gotta lop off four of these fingers. Forget the data glove: it's gotta be the er—data bikini, at least.

I think lust motivates technology. The first personal robots, let's face it, are not going to be bought to bring people drinks.

VIOLENCE AGAINST TEDDY-BEARS

MS: I saw a Virtual Reality demo by one of the big guys—this was back before he was a ropehead—and he had this little handpuppet teddy bear that was wired with sensors. And as he was talking about the possibility of putting colors on the little bear I kept thinking, "Yeah, pick the *red* color. Rub that bear all over the fuckin' road." Road rash. I was imagining a *game* called Road Rash. But I always had that kind of dark coloring on things.

M2: That sounds like the creator of *Shatter*.

MS: He's somewhere around here. But I don't want to give an impression that Reactor is that nasty software company. I keep saying, *we want to take computer entertainment seriously*. We don't want to do Pac Man. We want to do the badass stuff. And it's not that we have a sophomore compulsion to do games that say Motherfucker. We want to take it *seriously*.

M2: And take it farther.

MS: Yeah. Being the president of the company I can ultimately decide,

and I hate the whitebread stuff. I react strongly when I see a product with cute icons. One of the first things I did when I got Hypercard was create all this vile imagery for the icons—knifed hearts, skulls, barbwire.

M2: Sounds marketable.

MS: Now, it's not like I have any *compulsion* to create these images—hey, I'm tattooless.

M2: It's in reaction to all the vanilla syrup.

MS: Yeah! But I'm always accused of being an extremist,

any truth to the rumor that you guys are gonna do a gay version of *MacPlaymate* called 'The Manhole?'" [laughter and hissing] Are you getting a laugh face? You get that rictus in the face?

M2: This is fun. Though nasty.

MS: It's foul. It's gonna firmly bar me from the mainstream.

M2: Don't assume that nobody's gonna read this.

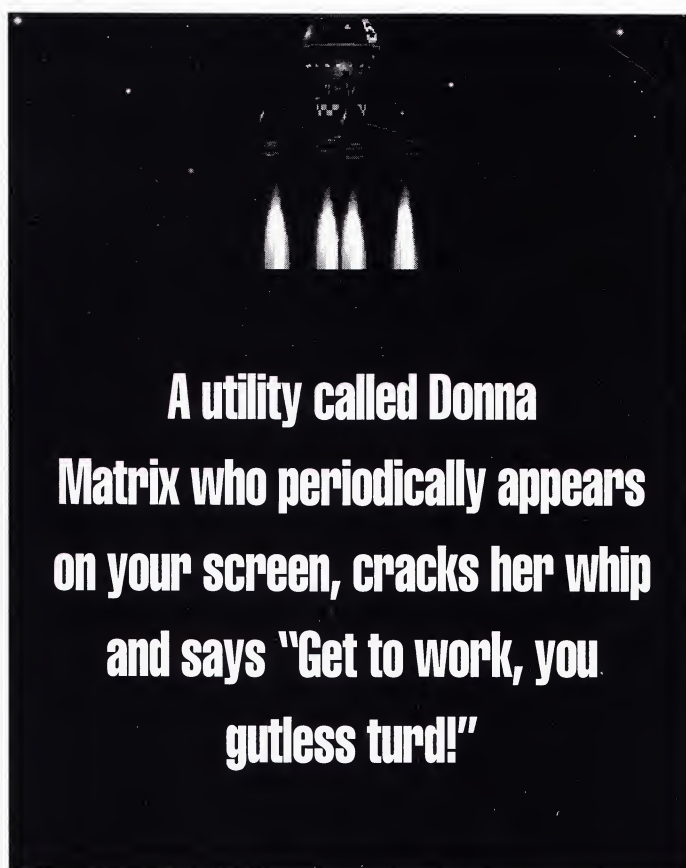
MS: No, everybody in the industry's gonna read it, but they'll figure, "Oh Mike's up to his old tricks." At least I can't get fired.

M2: What about censorship?

MS: I see a lot of people practicing *self-censorship*, which is hateful. People have assumed, incorrectly, that I've been under attack for *MacPlaymate* and *Virtual Valerie*. In fact I hear absolutely nothing—no contact from irate groups, moral fascists... Software is probably still in the window of no-reproach.

M2: This magazine is functioning in there too, so it's a playground for whatever. I understand you got into a spot of trouble with a SEMIOTEXT(E) issue?

MS: Yeah, it's sad. I did a cover with this crazy headless robot with a giant robotic penis with electrical energy crackling off it, comin' out of the dark at you. I liked this even more than my original cover, which was two robots buttfucking each other on a radioactive launchpad. I had actually written a crazy story that was gonna go along with it: "Electro Swordsmen." This was about a perverse science fiction writer back in 1950 who tried to get Galaxy to publish his story, "The Electro Swordsmen," about these two robots. They told him, "Get out of here, you're a fuckin' lunatic." And there were excerpts from his story within my story. Unfortunately, some people thought I was a fuckin' lunatic. **M2**



A utility called Donna
Matrix who periodically appears
on your screen, cracks her whip
and says "Get to work, you
gutless turd!"

just reacting. *Virtual Valerie* was reacting against all these super-boring CD-ROM products. When I saw Manhole and Cosmic Osmo—6 years and up—I just went, I don't know too many 6-year-olds who have a CD-ROM on their fuckin' Mac. [laughter] I can't say this is my joke but somebody came up to me in the show and said, "Hey is there



The Creative Spark at Industrial Light & Magic

Computer Graphics and

Muffy the Spider

**Mark Dippe
& Lisa Van Cleef
with Jas. Morgan,
Erol Otus
& Justine Herbert**

SIGGRAPH '90: Industrial Light & Magic, a division of LucasArts, proves once again to be one of the most stunning exponents of computer graphics. Following up last issue's SIGGRAPH Gallery I met, telephonically, the enthusiastic voice of Lisa Van Cleef. She offered to give me the grand tour of ILM, and to introduce me to Mark Dippe, the first Special Effects Supervisor to come from a computer graphics background. Even more interesting, his CG pedigree includes an apprenticeship with Jim Blinn, who introduced his holy ray-trace algorithms to Japanese artist Yoichiro Kawaguchi. Somewhat daunted, I recruited CG artist Erol Otus, whom you know from MONDO's SIGGRAPH Gallery and *Verbum 4.3*.

Outside, ILM is undistinguished Marin industrial park, but just inside the door a small gold statue of C3-PO welcomes us into the forced air, the fluorescent hum, the plush theaters of industrial success. The woman at the front desk flashes us a peace sign (!) as Lisa leads us into the labyrinth. It's a theme park. Posters line the hallways—Star Wars, *The Abyss*, Star Trek: the Movies, *Back To the Future*, *Cocoon*, *Indiana Jones*, *E.T.*, *Poltergeist*, *Young Sherlock Holmes*. Ye Gods! ...more than half of the ten most successful films of all time.

Inner space is tight but comfortable. Herds of nerds. Through one office door beams a still of *Astro Boy*. My hero!

Computer graphics department. Down more carpeted stairs, the office of Mark Dippe. I could feel at home here. A Church of the SubGenius poster and pink panties are tacked to one wall; a file cabinet is crowded with bottles. Yellow crime-scene tape loops around a leather whip, a crucifix and two large-screen computers. There's a cosy Habitrail for Muffy the spider, a female lead in *Arachnophobia* ["Eight legs and an attitude"]. And here sits long-haired, fast-talking Mark Dippe.

Jas. Morgan

MONDO 2000: We've seen a lot of computer graphics material, and I assume this computer graphics department has grown considerably. When did it expand?

MARK DIPPE: It used to be a dinky place; a very tiny, ill-thought-of corner. It's been growing for a couple of years, starting with *The Abyss*, but it really mushroomed for *Terminator II*.

M2: What was the first time someone suggested computer graphics and the response was "Absurd!"—but they did it anyway?

MD: Right, "Let's be crazy futurists and change the world." Well, a long time ago, this computer graphics group created a digital filmmaking apparatus. It was simply 3D computer graphics: a method of digital filmmaking whereby you apply traditional filmmaking techniques like compositing, touch-up, rotoscope, animation and loose screen extraction, but actually based on film plans, on the image, so to speak. They built this laser scanner which we used for years, a fancy device that scanned the film directly with red, green and blue lasers. Its other aspect was the input digitizer, which scanned the film into the computer with a very high-quality, high-resolution, rich color space.

M2: So you have every frame in the computer stored digitally at a resolution high enough so that your output looks great. That's what you're referring to when at the end of *Die Hard* you have a matte painting and little live shots which were put together on a computer.

MD: Yeah. That's an example of what George Lucas was after when he first got this group together. Certain techniques that are conceptually quite simple are very complex with physical, mechanical objects. For example, the *Die Hard* shot had one matte painting with little blank areas into which we had to insert about six or seven

**The digital element doesn't make an impossibility possible, it just makes it more fluid and plastic.
You can work with it more freely, experiment constantly**

pieces of live action. We shot an ambulance scene, some people walking out of a plane, some policemen hanging out over here, a little crowd over there, just to add live action to an otherwise static picture.

We had to integrate these live shots into the image of the matte painting. In addition, the camera is supposed to be on a helicopter, which is equivalent to zooming out or pulling back. So you begin zoomed in really close to the matte painting and then pull back out. Meanwhile, these six live action pieces of photography are being stuck in the right place and also zoomed out. Your helicopter is bumpy, so you're shaking as you pull back. There are layers of steam, and little flashing lights on the painting delineating the runway. So, as you might imagine, all these elements have a relationship that's constantly changing and relatively complex.

M2: But that kind of shot used to be done without this digital complexity.

MD: Well, you can do composites that are put together from forty pieces of film, but it's extremely risky because the piece of film has to be run through the printer forty times. If you make a single mistake you've got to redo the whole thing. Remember that if you have a live action piece of film stuck on a painting, they have to move *exactly* together. Even if the piece of film jitters a little bit, it's obvious. It *has* been done well, though, and the successful projects are the primo optical and compositing shots.

In *The Abyss* there were several amazing optical composites combining many elements: flying birds, the Golden Gate Bridge, ocean waves, a car... but they were very difficult. The digital element doesn't make an impossibility possible, it just makes it more fluid and plastic. You can work with it more freely, experiment constantly.

Another advantage is that you can go back and just touch up one frame. Before this was possible, you'd just be stuck with your negative.

M2: So that's a big area where the computer is useful. With the information in digital form, you can go in and use a paint system or something like that.

MD: Right. It's a big part of what we do here and at Digital Optical, a new department. Compositing has become a very large filmmaking notion: the final step, so to speak. Take pieces of film, put 'em together. This process is common to people who create their film from other than computer generated ways. Often we generate pieces of film with computer graphics or computer animation and we combine them with live action. Some people use no computer graphics. All of their elements are traditional.

M2: But they can still digitally composite.

MD: Right. So we've separated that function to deal with those types of shows. One example is *Rocketeer*, where there's digital compositing of an animated effect where some guy flies. He's flying and he's supposed to have flames shooting out of his little jet pack. The flames are actually drawn and then composited digitally to add detail. You also want to make sure that their match moved correctly. So there's all these reasons for doing it digitally. In the old days you had to do a complicated line-up on a printer: look at the projections, run it through, see how it went, and then adjust it a little bit.

MESSING WITH THE BLUES

LISA VAN CLEEF: It also revolutionized blue screen removal.

M2: That's the old style of compositing?

MD: Yeah, but it's now much more effective. Everyone knows that if

you shoot someone in front of a blue screen, through the film process—by the way you can separate things into components, into images—you can delete the blues very easily and just get that element back out.

For instance, if you wanted to have little tiny men walking on a huge guy, you shoot some guys with a blue screen walking as if they're on a big guy, then you shoot some guy laying down really close up, then extract the blue. By using the blue screen, the blue is removed, so there's only the guys walking, and then you just put the two pieces of film together. Now the problems of that, traditionally, are several. One is "blue spill." You get blue light on your body and little holes come through.

LVC: Sometimes there's a halo around hair. You can see it easily on television.

M2: The weatherman.

LVC: There is something funky going on around that guy.

M2: I heard there's some expensive device that handles multiple levels of transparency.

MD: They could do it fancy, but it's an inherent problem. The shiny surfaces pick up the low key ambient light. Another problem is *blur*. If you move your hand it is partially transparent because of blues in the flesh tones.

M2: So digitally you have a range of transparent values that you can assign.

MD: You have much more flexibility. You can digitally mimic the color separation process. If you go back and find that there's break-up, holes, or ragged edges from blurs, you can threshold it differently, change the color separation process entirely. Film was based on blue separation. One problem, however, is that when you have magentas, the bluish parts tend to go red.

In *Back to the Future III*, there was a good example. This magenta Victorian hoop-skirt affair which the heroine [Mary Steenburgen] was wearing was in a big scene where they needed to do a blue screen extraction. It absolutely had to be done. With traditional blue screen it would have been tough, but we manipulated the color balance digitally to get the best trade-off.

ABYSMAL WATERSPORTS • TRUE GRIT • REAL BULL

M2: Aside from compositing, what people really latch onto as the main contribution of computer graphics is the amazing 3D modeling.

MD: 3D, that's the big cookie. That's the Holy Grail. It's really a new aesthetic, a more direct extension.

It's very new. You can create things that are impossible to create with models, sets, stages or actors. You can create creatures that are made of water like the pseudopod in *The Abyss*. Water is so peculiar in its action that how it really looks is very recognizable. So to make a creature out of plastic or glycerin bags just wasn't going to work. One guy had the idea of spraying water hoses, shooting endless footage of spraying water, trying to manipulate the arcs and then picking the ones that matched the action. That's an example of what people were thinking. But it's a natural for computer animation, because if you simulate water you can control how it behaves.

M2: What about spaceships? How do physical models compare with computer generated ones? I mean, maybe it's the video, but, for instance, the CG *Star Trek* ships, they don't quite look dirty enough.

MD: First of all, computer graphics will never replace everything. There will always be a difference. One of the advantages of physically constructed models is the infinite detail that you can apply. The grittiness, the dirt, the sandblasting, the paint, the markings. I mean, you can burn holes in them!

I mean, it's really hard to simulate bleeding animals and ritualized sex with computer graphics... So I figured I could get into the water creature/happy fairy thing for a while

M2: You can create weird effects with your materials, as well. I mean, you can hold the model and let the paint drip this way or that.

MD: Right. People can use anything to create a model: heat, water, all different kinds of materials, all their experience. In computer modeling, even five years ago, it was very expensive to create a dirty looking model, a model with age. An important reason for building a physical model is that it holds up over various points of scale. If you come close, you can clearly see its detail, its wear. We're now beginning to approach that ideal. As time goes on, most rigid models, models that don't articulate, will all be computer generated.

M2: Models that actually have to move are going to be...

MD: The next step. Articulating physical things brings us to another level. Here, they've built models of a living creature, like a goat, a cow or a bull.

M2: The Merrill Lynch commercial.

MD: Yeah. There's so much that goes into that: hair, wrinkling skin, the whole issue of the softness and pliability of nonrigid bodies. We *can* do it, it's just a question of "Can we do it in 4 months?" That's the bottom line. Animatronics, puppets, they just require much more work.

M2: Well, every year you do see more of these things duplicated in the SIGGRAPH reels. You've got hair, you've got water, it's just a question of massive computing power getting a little cheaper and algorithms getting more commonly available to everybody. What about paint systems? Traditional mediums like watercolor—painting wet on wet—are now being simulated on the computer. You'd think that in animation there'd be similar advances.

MD: We have the best available people and materials, but it just takes a lot of effort. For example, the work we're doing with *Terminator II*, which is metamorphosing liquid humanoid forms, is very hard to do. All these things are in the realm of possibility but far from being everyday. What I particularly like about the computer is that it is so freeing. Because it can mimic a physical process, whether it be water color or flowing water, there is some way to do it.

THE RESOLUTION WILL BE TELEVIEWED

M2: How do you know how good the resolution's going to be when it's blown up on a huge screen?

MD: Well, we test it all in our nice screening room. We make compromises because you don't want more resolution than you need. We've done experimentation and have found a formula for how many pixels across you need so that it will hold up on the screen.

M2: Do you do your own multiplication based on what you see up there?

LVC: Definitely. The programs are usually worked out before that time. But often you'll modify your look, your lighting, or the character of the surface.

M2: It's so smooth on the big screen. On the hacker-level machines it's always ratcheted.

MD: Right. In fact we're really concerned about that. In contrast to television on the screen, what we do almost always goes into live-action in film. It's not fantastic, it's supposed to be an illusion of reality. So it has to look like it's film. When we create a 3 dimensional object, it's pure, it's fundamentally correct. We have to *make* it look grainy if the film was grainy, we have to *make* it look blurry as if the lens is out of focus. We have to make it look like it was shot there, which is equivalent to just making your stuff dirty.

JAMMING IN THE KEY OF CG

M2: What do you think the effect of CG will be on film aesthetics in the 90's?

MD: Some maintain that it's still a technological barrier. Presently we're in this anachronistic time where computers are new, but probably by the late 90's, it'll be no big deal, like using a camera. For people who haven't used a 35 mm film camera, it's an alien object. But the computer, I think, will soon become very common and will open many doors for filmmakers.

When Jim Cameron envisioned the water creature for *The Abyss*, he was not very familiar with computer graphics, but he knew that it might be possible. So he took a chance. Although it's in a small part of the film, it's a very large creature and he knew that particular sequence would probably be the most striking to the viewer. But it's just something he drew in thinking along those lines. When you're thinking visually about how to tell your story or even what your story is, if you understand what the medium can do for you it's like playing your instrument. It just opens up a whole new set of vistas for you. Right now there are very few directors and writers who are familiar with it.

M2: I liked your metaphor with the musical instrument. What resonance do you find between computer graphics and the musical experience?

MD: Well, I think there's a relationship. There are many musicians that work in this arena. But the analogy is a little bit strange. To me, music has always struck me as something more. It has no meaning, but it's very emotional, it's very direct. You can hear something and you feel that it's sad but it has no direct meaning. Images have a riddleness about them. What they mean or why you work with them is somehow very different. But I

think that's because the visual universe is the reverse of sound.

Actually, however, that's really a good point. Computer graphics has much more linearity to it, like music you write in time. You can script and describe the process of the image in computer graphics. There's a denotation that is distinct from photography or conventional filmmaking; a script is the guide to making a film but making the film, is a little bit different. With computer graphics, however, the script makes the picture. It's true, there's an analogy there.

THE THEATRE OF DEGRADATION IS AT HAND

M2: So what about it's effect on phonetic language. I'm thinking along McLuhan's lines. In the 60's he was always intuiting this "something" that would come along and revolutionize the way we communicate. I think that it could have a large part to do with computer graphics, that we can transcend this linearity of grammar and syntax and explode into something you can see/hear rather than just see and hear.

MD: Yeah, like multi-media; you're able to manipulate images in time and everything in a related way. I think that's very true. I think film does that as well, through parallelism, editing, and storytelling. There are many film theorists who've thought a great deal about the relationships of the line of harmony to the shapes in the image. Like in Eisenstein.

M2: Oskar Fischinger.

MD: Yeah. There are many possibilities of that nature. The difference between computer graphics and more traditional ways of realizing those ideas is that once you have it all in digital form it becomes truly universal; it's all just bits and they can mean whatever you like. You can transform and mutate them freely. I really enjoy it.

I'd never thought that I would work here. I had always kind of wanted to lead the assassination fund for Steven Spielberg and George Lucas

I'm not sure how it's going to manifest itself in filmmaking. But it's becoming more sophisticated quite rapidly, even in the language of traditional filmmaking or commercials.

LVC: You're going to go beyond the boundaries of a screen. What you think of as traditional film—you go home and watch it on a television, or you go to a theater and pay money to watch it on a big screen—is what you're limited to thinking. Once the technology becomes more available and accessible to everyone, what then? You'll have a whole other area that you'll need to define when you're talking about syntax. It's an entirely new thing which does go into multimedia and goes beyond it. And since we're so limited by what we know, we make all of our references to that. "Is it like a theater?" "Is it like a video?" Well, no. It's something else entirely.

MD: That's right. The theater of degradation is at hand.

LVC: Once you have the ability, it's like having your own video camera.

CG SELLOUT: RITUALIZED SEX TO E.T.—BLEEDING ANIMALS TO HAPPY FAIRIES

M2: I'm told you're the first person in that chair to specifically have a CG background as opposed to previous models. What led you to CG and then into film, and who are the people who have inspired you along the way.

MD: Well, I became interested years ago, around 1978, when I accidentally ran into a very early computer animation system. Back in those days you had to get the stuff, it really didn't exist on film. So I searched around, learned a few things, and ended up at UC Berkeley, where they had an emerging set of computer graphics people. In fact, these people had come to start the Lucasfilm project.

ILM's SYSTEM ARSENAL

On current CG projects

we use a system called

Alias, a modeling and

animation system devel-

oped by a Canadian

company. We use a

rendering system called

RenderMan from PIXAR.

We also use a 3D comput-

ing machine called a SGI

Silicon Graphics from the

S.F. Bay Area. That's the

basic stuff. Almost all of

our projects require

something that you can't

just get, though, so we

have a ton of custom

programs, specialized

software that augment

the whole system.

M2: Who did you study with?

MD: I took classes given by Ed Catmull and Jim Blinn, who had essentially invented early computer graphics. Nelson Max was another teacher of mine. When I came, I didn't even know how to program. I was really quite fortunate to have been there at that time. I myself and a few others were determined to study computer graphics, but there was no real program. So we became very frustrated, and were about to leave. We, in a sense, stole, you know, borrowed equipment from people. But then they (UC) hired Brian Barsky, whose area was computer graphics, as a faculty member. He supported us, and a few years later, 5 or 6 of us finished up there.

I was also very interested in experimental video and worked with some people at California College of Arts & Crafts like Jody Gillerman. I was really interested in that whole notion of fluid, plastic media, the electronic manipulation of images, as well as false worlds, and lack of reality. That's really what intrigued me, and I had always intended to get involved in television or filmmaking.

My compatriots at that time were all very interesting people. Yet it's strange, because after being very serious and working quite hard, I became more enchanted with the self-degrading, bohemian process. So I just dropped out and lived in terrible places for a while. After a few years of barely managing that, I decided to get involved in commercially oriented, big scale projects, something like my present position. That's where I was eventually led. I mean, it's really hard to simulate bleeding animals and ritualized sex with computer graphics. It's too hard for me. So I figured I could get into the water creature/happy fairy thing for a while. Although actually it is quite brutal. In movies there's always people getting speared and their intestines ripped out.

M2: But the right people get speared.

MD: You know what I like about commercial filmmaking? It's very moralistic in the sense that only the bad guys get eviscerated. You see a lot of that here. People don't want to work on these terrible FXs, but it's always the bad guys that get it good.

M2: So you started working at ILM on *The Abyss*?

MD: Yeah. To tell you the truth, though, I'd never thought that I would work here. I had always kind of wanted to lead the assassination fund for Steven Spielberg and George Lucas. People who knew me are pretty surprised.

M2: Pull quote, right there! [Laughter all around]

MD: It's true, though. When I first came here I'd argue with people, saying "Don't you think this is cultural injustice?" That's why I liked it.

LVC: As he took his paycheck, he would say "Don't you think that we shouldn't be doing this?"

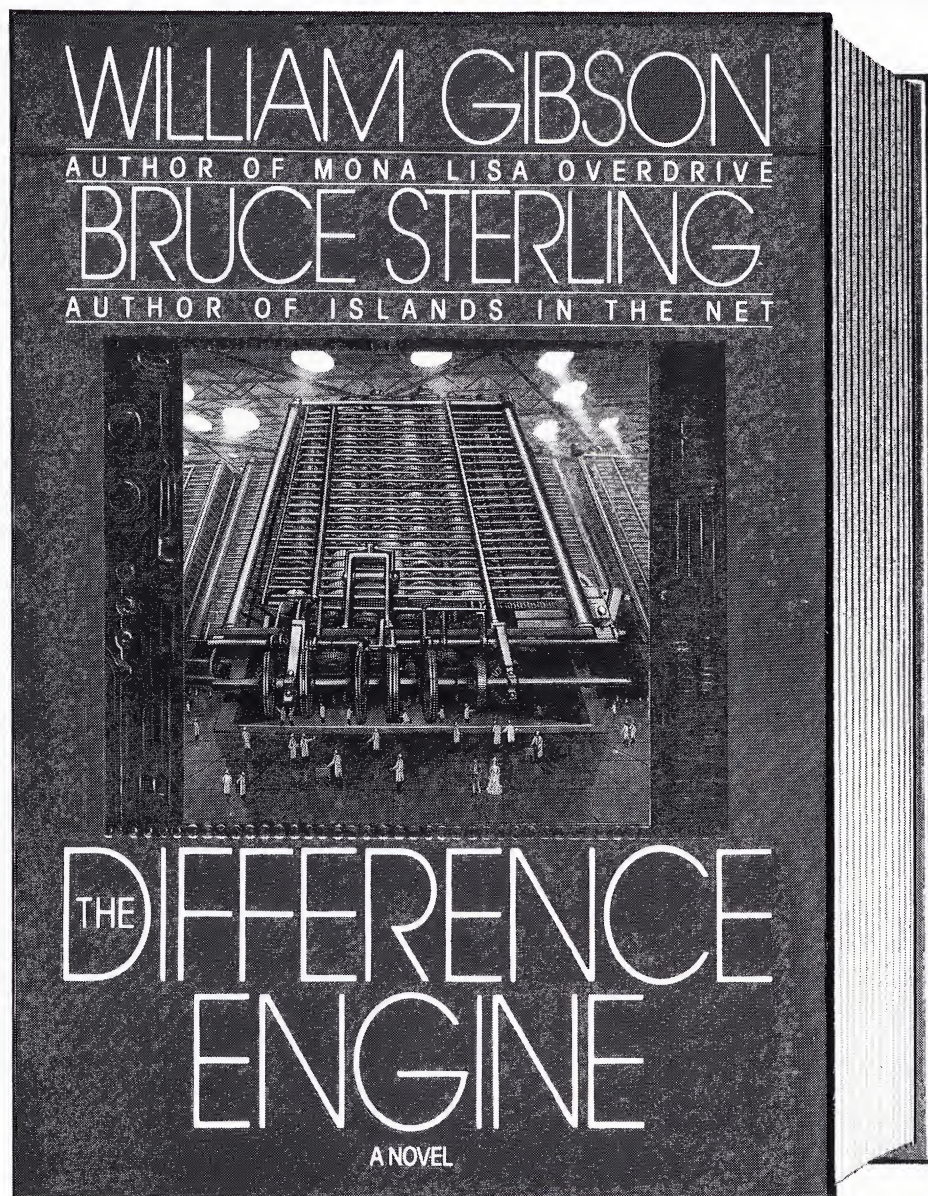
MD: Plus, the other day I was in Berkeley with all these vegetarian drug abusers, and I was talking to this woman who wears only synthetic or plant materials for clothing. On the side, though, she works for a bondage gear company making leather goods. And I like how all of these... Hmm, I wonder what you'd call them...?

M2: Paradoxes? Hypocrites?

MD: Well no, I think it's "human." **M2**

Erol Otus—a painting major at UC Berkeley and student of illustration at The Academy of Art, San Francisco—is now doing product and interface design for paint and re-touching software at Island Graphics Corporation.

London, 1855. Where the future of the world turns on the cogwheels of **THE DIFFERENCE ENGINE**



"A visionary steam-powered heavy metal fantasy!" Gibson and Sterling create a high Victorian virtual reality of extraordinary richness and detail." — Ridley Scott, director of *Bladerunner* and *Black Rain*

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A BANTAM SPECTRA HARDCOVER



MARGINALIA THE MARKETING OF THE DIFFERENCE ENGINE

A new collaboration between William Gibson and Bruce Sterling is certain to be a major event in hipster intellectual circles. But with the release of *The Difference Engine*, Bill and Bruce have apparently ascended to the realm of men-of-letters. Bantam's marketing of the book is not merely mainstream, it's extremely elevated. There's a regular hardcover edition priced at \$19.95 and a special deluxe collector's edition priced at \$125, a treatment reserved for the hottest and most esteemed literati. This is certainly the first time any book to come from the "Cyberpunks" has been given this treatment. *Mondo 2000* talked with Allen Goodman, regional sales manager for the Bantam/Dell group, to get some further insight into the publisher's thinking and what this may mean for the genre as a whole.

MONDO 2000: Why this treatment for this book?

ALLEN GOLDMAN: We find that, in the broader sense, there's a marketplace for collectible science fiction books. Science fiction fans have always been very collectible-edition-oriented.

M2: Are you also saying that the genre has moved more into the mainstream or that the world has caught up to it?

AG: It's been six years. Kids have come of age who consider cyberpunk as their genre. And we've had real events, computer espionage cases, viruses over national computer networks. Things have happened that make some of the scenarios these writers depict seem much more plausible.

M2: How much influence did Bertelsmann (Bantam/Dell's German corporate parent) have on this decision to go with a prestige publication. Five or six years ago, when I was in West Germany, I talked to publishers who had no idea that this genre existed. Now they've seen how Fax machines and computers kept the Chinese pro-democracy movement in touch with the world and then they saw the incredible autumn of 1989, the reversal of the domino theory... the Wall came tumbling down. That's got to have changed some thinking. Does that enter into it?

AG: Well, now you're bringing up a number of interesting points. The immediate answer is no. The decision was based on our assessment of the

Rudy Rucker

The Difference Engine

by William Gibson and Bruce Sterling



There's the thing that makes me laugh and scream about Sterling and Gibson. These opportunistic scumbags think information is *very flash*, like a hemlength or a ribbon color, they think they buy and sell the work of the California street, these ink-stained wretches wholly unaware of the dark dream beauty of the hacker's grind against the wall they've never even seen nor ever even will. But no matter. Listen to them describing a Texian's honeymoon.

"Finally, after throwing our female guests into hysterics by behaving like an elephant in must, the noble beast was captured by main force, and carried upstairs, all four feet in the air, by our household staff. Within his room, Mrs. Vallandigham was awaiting him in shift and mobcap. There and then, to our considerable amazement, this remarkable man satiated his baffled lust on the unresisting body of his legitimate spouse, and copiously vomited during the operation. Those who have seen Mrs. Vallandigham would not think this latter incredible." [p.415]

Congrats to Bruce and Bill for a real cool time. Kick-butt action adventure you can jack off to. We're talking high computer meaning: we're talking avant-garde ending, we're talking artful fade-out on the word *I*. I and I. What would it be like to be a thing that thinks? What would it be like to be a thing that does not think at all? What would it be like to be a female character in a Gibson/Sterling novel?

continued on next page, far right column, babe

What would it be like to be a respectable prostitute? What would it be like to be a stroke-fantasy in the minds of the two greatest science-fiction writers, bar one, in po-po-mo's crepuscular Amerika? What would it be like to fuck a whore in Victorian England? *The Difference Engine* informs.

"We shall march in irresistible power to the sound of *music*." She turned her veiled face to him, with a queer sprightly earnestness. "Is not this very mysterious? Certainly my troops must consist of *number* or they can have no existence at all. But then, what *are* these numbers. There is a riddle..." [p.94]

Imagine literature's cyberpunks taking a rest from making up cereal-box words for stuzzy cyberspace futures. Imagine that this really happened during the California drought of 1986-1991. *The surf was mush, dude*. Imagine that during this dry, Reagan-Bush lustrum the wonderpunks William Gibson and Bruce Sterling wrote *The Difference Engine* about 1850's London, and suppose the cyberdude Rudesome Yours Truly wrote *The Hollow Earth* about 1830's Virginia as well. Imagine cyberpunks boning up on books like Arthur Hobson Quinn, *Edgar Allan Poe: A Critical Biography* (Appleton-Century, 1941) and Joan Baum, *The Calculating Passion of Ada Byron*, (Shoe String Press, 1987). Imagine the steampunk writing of James P. Blaylock and Tim Powers. Imagine consummate literateurs, revelling in their native tongue.

"The kino came alive with harpies, meant to symbolize Houston's slanderers, those who'd smeared his precious honor with the ink of a gutter press. Nasty crooky-black things, crowding the screen in devilish black and red. As the screen whirled steadily, they twitched their cloven hooves. Never had she seen the like, some Manchester punch-card artist having gotten the gin-horrors for sure..." [p.41]

Babbage was a hardware vaporware titan, he almost built the computer chip out of gears, dude, but he had fights with his tool-maker, he was in real life a fucked-up asshole and Lady Ada sucked his secret dick in the tool-garage and she wrote a program to compute n-dimensional polynomials by the method of finite differences

for him, thus earning her title as "the first computer programmer," with the Pentagon-approved computer machine-language now named ADA after her, no less. Babbage croaked spastically with no machine ever finished, in the world Lady Ada hooked up with a racetrack gambler, she got into laudanum = wine + O, she died young of womb cancer.

His eyes narrowed. "It's what a cove knows that counts, ain't it, Sybil? More than land or money, more than birth. Information. Very flash." [p.8]

I've wanted to read *The Difference Engine* ever since Gibson and Sterling announced the project five years ago. The book does not disappoint. Gear-stuffed "engines" pepper their landscape, pervasive as our computers. Hackers are "clackers" and RAM is "yardage," meaning the net length of the circumferences of your gears... as crass a concept as RAM's brute counting of the number of byte-sized memory slots. *The Difference Engine's* graphics output is CGA: a wood screen of small, wire-tumbled blocks. In the end, Ada discovers Kurt Gödel's Second Incompleteness Theorem and uses it to create an intelligent program that is artificially alive. The program is on special celluloid punch-cards and earlier in the book people are like threatening to throw acid (we're talking vitriol!) in your face if you steal the deck of cards. Acid in your face for stealing Gödel's Incompleteness Theorem. The boys have done *Mamma Mathematica* proud.

"Our lives would be greatly clarified if human discourse could be interpreted as the exfoliation of a deeper formal system. One would no longer need to ponder the grave ambiguities of human speech, but could judge the validity of any sentence by a reference to a fixed and finitely decidable set of rules and axioms. It was the dream of Leibniz to find such a system, the *Characteristica Universalis*..." [p.421]

Rudy Rucker wants you to buy his CHAOS software for \$59.95 plus handling from Autodesk Telemarketing. Get out your credit card and phone [800] 688-2344. The program runs on all DOS machines and is named "James Gleick's CHAOS: The Software." Tell them Rudeboy sent you. **ME**

potential of this book and the popularity of these two writers. It may well have had some kind of "shock wave" effect in how they publish in Europe. **M2: Just what is a Deluxe Edition, anyway? What's the real distinction?** AG: A deluxe edition is a book published the way all books *should* be published: on acid-free paper with all the proper binding and stitching. It really is a book build to last. They're not profit makers. We can't sell enough of them. But we do get the prestige.

Cyberpunk isn't the only genre getting attention in fiction. On the horror side of the slate there is *Splatterpunk*, the written equivalent of some combination of *Texas Chainsaw Massacre*, *Evil Dead* (I and II) and *Night of the Living Dead*. The stories are graphic and nasty and not meant for the queasy. *Splatterpunk*, edited by Paul M. Sammon (St. Martin's Press, \$14.95), features stories from Clive Barker, Nancy Collins, George R.R. Martin, and Richard Christian Matheson, among others. The book also has a really provocative essay that Sammon wrote himself on the *Splatterpunk*. Definitely not recommended for the squeamish or insomniac, and if the radical feminists bother to read some of these stories, Brett Ellis would get some rest. On the other hand, if you want to really get a look at the power of words, this one has a little two-page story called "Red."

It's a leap from explicit horror and shocking imagery to quantum physics and Tibetan Buddhism, but the link between the two and the ways in which each shape our world is the subject of Kirby Wilkins' novel *Quantum Web* (Henry Holt, \$19.95). The story revolves around a physics professor in India for a conference when he accidentally stumbles upon India's secret plans to test its first nuclear bomb. Fleeing the conference and his own guilt about particle research, Jack flees to the hinterlands of Nepal where, as the result of a chance encounter, he's forced to kill a Tibetan guerilla fighter. This event triggers a link with a Tibetan shaman and draws Jack back across the world. The chain of events eventually link up his friends in Berkeley, a host of Nepali and Tibetan characters, including a beautiful and tormented double or triple agent, and a guru who has lost his faith. Wilkins manages to weave science and mysticism together against the backdrop of nuclear proliferation.

ME Richard Greenfield



John Boruso

INFINITE *Personalities*MULTIPLE ORGASMS,
CYBORGS & FOUCAULT

Infinite Personality Complex
Sarah Drew
The Synaesthetic Studio
P O Box 12771
Berkeley, CA. 94701

Nothing seems really novel anymore. From Cage to Tyranny, I've heard the avant-garde heavies and, at this point, I'd just as soon hear Elvis Costello croon. Industrial is turning into dance music, just this side of House. Groovy, yes. But lacking in surprise.

Cum and fuck it in my yoni
Cum and suck it in my yoni
Mahsalita yi
Cum inside my little yoni

Well, surprise! Here comes Sarah Drew's *Infinite Personality Complex*. This is some *package*. First you are confronted with the photos of Ms. Drew. Somewhere to the erotic left of Gibson's cool scary bad girl heroine Molly, a little softer, more real—borderline cyberpunk pornography involving computer chips, syringes and a sense of humor. A smartass expression to make the Gucciones of the world flinch. I didn't think twice. I reached deeper into the *package*.

Marshall McLaren

The cover of the lyric sheet gives you Lady Drew's breast, a rouge red nipple peering through a computer chip. A quick glance reveals themes:

1) In the age of infinite replication, why be stuck in one personality? Or several? Why be stuck in one body? Or any body? Or—why not let the infinite personalities out of your one body via the viral technology we're immersed in.

2) The cyborgs are here now. We're merging with our computer chips. This beautiful bombshell says that "Foucault says language forms structure," she's got sex, magick and microprocessors on her mind, and she invites you to cum inside. Electronic dream date for the mind and body?

Used to be we thought
one life, one body, one person
but let me tell ya
dem times dem times they are
a-changing
I got to buy a new model to house the mul-
ti-ple mes
Rhada/Yoko/Yoruba/John Smith/Dietrich
Hiemmer/ Dietrich Hiemmer/PG&E/Mit-
subishi

Next we have a theoretical explanation of the record, titled "Music as Language of Synaesthetic Experience as Cultural Virus." A complex, highly intellectual—though thankfully brief—exegesis follows. Synaesthetic experience seems to be the goal. "Infinite Personality Complex is conceived as a meme constructed of matrices of synaesthetic language bites. While the fruition of the project will involve multimedia performance, and exploit the latest in 3D sound technology, the music itself can evoke the synaesthetic experience." And then there's this claim: "In test listenings, *Infinite Personality Complex* has repeatedly evoked synaesthetic and altered state experiences."

OK. I'm just about to put the album on, but there's still a little autobiography. Starts off rather quaintly. Alienated little girl into frilly dresses, patent leather shoes, antique shows dabbles in the occult (at eight). You know—fantasy, spellbooks—all those girlish things.

Then, apparently at 15, Lady Drew (and that is what she is called in this biography) discovered sex. Clandestine affairs with married men in big black cars who bought her "fur coats and ornamental hats," later a hostess in clubs in Japan, occasional high-priced prostitution, "sexual games and diversions in Hong Kong and Fuji"—all those girlish things.

And while she was at it, there was Santeria in Brazil, mountain climbing and Buddhism in the Himalayas, month-long opium trips on Thai Islands and a brief tutorial from Fritjof Capra on the new physics—all those girlish things.

OK. So I'll admit it. By the time I actually put the cassette in the machine, I was pretty jazzed. How patently obvious! What the avant-garde needs is its own Madonna (not the religious figure—the other one). But I was totally unprepared for what emerged out of my speakers. *IPC* starts off with the overtone liturgy. I am reminded of the Firesign Theater, which predicted that "living in the future is a little bit like having bees in your head, but there they are." "A Tibetan Monk troupe made up of variations on Diamanda Galas" doesn't quite do this justice. "A soul chorus of electronic maenads" doesn't either. More like the feeling of having your brain fissioned, neuron by neuron.

The songs, on repeated listening, become discrete, distinct artifacts. But the first time through... boy I mean to tell ya. I'm not sure if I had a synaesthetic experience or not, but it sure blasted me out.

Computer chips fill my brain.
Optic fibres are my veins...

I remember
I remember
Flesh

ME



The Best of Tom Zé

Luaka Bop/Warner Bros.

"The music of Tom Zé is unlike any other Brazilian music I've heard." So begin David Byrne's liner notes for this outstanding collection of one of Latin America's most provocative popular musicians. Born in 1936 in the Bahia state of Brazil and educated in the streets of Salvador, Zé first appeared on television in 1960 on a show called "Escapada Para O Sucesso" (Stairway To Success). Way back then, he signalled his singularly unique political and aesthetic perspective. His contribution to the TV show was the composition "Rampa Para O Fracasso" (Ramp To Failure).

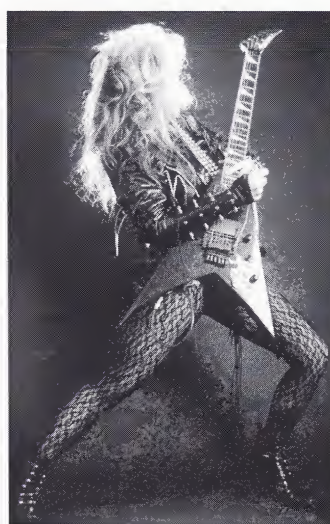
Thus he set the stage for a career of musical satirization. After years of television exposure and playing with some of Salvador's leading musicians under the moniker Tropicalista, Zé entered the College of Music at the University of Bahia where he studied composition, counterpoint and harmony as well as performance on piano, guitar and his main instrument, the cello. It wasn't long after graduation from the University, however, that his forward-thinking intellect led him to expand his orchestral pallet to include devices like blenders, radios, typewriters, tape recorders, keyboards and massive sound reinforcement systems. He quickly became one of the leaders in the Brazilian youth movement of the 1960's and became instrumental in founding and maintaining the support for the Tropicalist Movement, a collective of Brazil's finest young musical minds including Caetano Veloso and Gilberto Gil. During that time he garnered numerous awards and prizes and, in 1968, he began recording the first of several seminal solo recordings.

For the past twenty years, Zé has continued to support leftist political groups and revisionist actions while maintaining active exploration into experimental musical structures and poetic performance art.

This collection of fifteen songs reflects Zé's mid 1970's songwriting period, a time of intense emotion due to the sudden and tragic collapse of Brazil's utopian idealism and the great political repression that followed the military takeover of the government until 1984. Each song is

rich with the dualism of life in those times. Beautiful Latin ballads disguise a tragic world full of deceptions and lies. These songs are then juxtaposed against full-powered compositions like "Toc" and its terse musique-concrète syncopation and twisted guttural cries. The collection opens up with a fiery polyrhythmic number entitled "Ma." Ma begins with a tribal calling to "baptize this baby" through drums and chants and quickly develops into an intense driving rhythm featuring a finely conceived countermelody line on acoustic guitar and a full sounding synthesizer and horn section backup. Powerful stuff! Songs like "Hein?" and "A Felicidade" demonstrate Zé's thorough grasp of the indigenous musical heritage of his country, while "Nave Maria" powers forth with the full force of a punk aesthetic and total urban angst. The sonic quality of these recordings is impeccable and full translations of the entirely Spanish lyrics are provided in the nicely laid out liner notes packaging. Hats off to Sire and Warner Brothers Records for putting out this important work. **ME**

Ed Tywniak



The Great Kat

BEETHOVEN ON SPEED

The Great Kat

Roadrunner Records

Yep! This record is everything that you think it might be and a lot more. Just check out an excerpt from the liner notes:

Wake up! The Great Kat is God!

Get into Hyperspeed before it's too late! !!

You have fallen into the Great Kat's mission to hyperspeed you into the 21st century! !!

Speed. Anger. Violence. Brilliance. Speed up your brain now! There is no turning back!

And from the opening guitar flurry of "Beethoven's 5th," there is indeed no turning back. Speed metal versions of favorites like "Flight Of The Bumble-Bee" and "Piano Sonata in B flat Minor" by Chopin stand tall next to original head-knockers like "Ultra-Dead," "Kat-Abuse" and "Made In Japan." The Great Kat proves herself to be a kick-ass guitarist that can burn with the best of them. Each song displays plenty of flash and guitar virtuosity and her vocal delivery is loud and appropriate.

The one diversion from this format is the interesting "Sex & Violins." The Great Kat is featured on violin on the song's two sections. Section One actually

features her at an earlier time when she was Katherine Thomas, a scholarship student at the Juilliard School Of Music. This acoustic violin piece features a delightful interplay between the violin's melody line and the rhythmic piano accompaniment. Section Two features the Great Kat on electric violin; with digital delay, reverb, and backward tape editing. These two pieces, although a bit of a musical anomaly given the context of the rest of the album, provide an interesting glimpse at the range of talent the Great Kat possesses. She's hot and this music is hot. But the not-so-modest liner notes will attest to that:

Special praise to the Great Kat! !!

!!!!!!!!!!!!!!!!!!!!!!!!!!!!

The most brilliant genius in the entire universe! !!!!!!!!!!!!!

The rest of the inferior world can Fuck-Off! !!!!!!!!!!!!!!!!!!!!!

The Great Kat's non-ending. Blinding brilliance and genius transcends the mediocrity of mere mortals! !!!!!!!!!!!!!!!!!!!!!

Once every 200 years, there comes a brilliant mind who revolutionizes the world:

The Great Kat is that one genius! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!

The Great Kat is the Beethoven of the 21st Century! !!!!!!!!!!!!!

The Great Kat is God !!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!! !!!!!!!!!!!!!

Who am I to argue?

WHERE THE PYRAMID MEETS THE EYE:

A Tribute to Roky Erickson

Various Artists

Sire Records

During the 60's, Roky Erickson fronted one of the seminal psychedelic punk bands of that period, a fiery Texas group called The 13th Floor Elevators. The band flashed momentary stardom with their hard-edged classic "You're Gonna Miss Me," released in 1965. Led by Erickson's charismatic

personality and bigger-than-life stage persona, the Elevators became a religion to a legion of Texan fans. They provided these followers with a driving spirit for change. The liner notes from their first record titled "The Psychedelic Sounds of The 13th Floor Elevators" included these prophetic words:

Since Aristotle, man has organized knowledge vertically in separate and unrelated groups—Science, Religion, Sex, Relaxation, Work, etc. The main emphasis in his language, his system of storing knowledge, has been on the identification of objects of reasoning separately and for one situation at a time. Had man been able to see past this hypnotic way of thinking to distrust it (as did Einstein), and to resystematize his knowledge so that it would all be related horizontally, he would now enjoy the perfect sanity which comes from being able to deal with his life in its entirety.

Recently, it has become possible for man to chemically alter his mental state and thus alter his point of view... restructure his thinking... so that his thoughts bear more relation to his life and his problems, therefore approaching them more sanely.

It is this quest for pure sanity that forms the basis of the songs on this album.

Unfortunately, Erickson was busted for marijuana possession in 1968. He pled insanity and was institutionalized for four years at the Hospital For The Criminally Insane in Rusk, Texas. When Erickson emerged, he quickly became a product of his own insanity plea. He fashioned himself the Rev. Roger Roky Kynard Erickson, leader and sole member of his own self-defined church. Well, Roky isn't quite alone. You see, he's frequently inhabited by extraterrestrial aliens. Well, a series of unsuccessful records, institutionalizations and other personal and professional failures culminated in a second arrest in late 1989.

What remains is a significant body of work, expertly and soul-

fully interpreted on this release by a variety of groups including ZZ Top, R.E.M., T Bone Burnett and The Jesus And Mary Chain. Bongwater does a haunting rendition of "You Don't Love Me Yet" and the Butthole Surfers have a rave-up on "Earthquake." Doug Sahm gets the nod for the classic "You're Gonna Miss Me" and Sister Double Happiness does a powerful version of the more recent "Two Headed Dog." Other artists featured on this 19 song CD include John Wesley Harding, Poi Dog Pondering, Primal Scream, Julian Cope, Southern Pacific, Richard Lloyd, Lou Ann Barton, Thin White Rope and Chris Thomas.

This CD gets high raves for inspired performances and historical perspective.

PS: Special thanks to Jim Hart for turning me on to this! **ME**

VIDEO REVIEW

INDUSTRIAL SYMPHONY NO.1: THE DREAM OF THE BROKENHEARTED

David Lynch and
Angelo Badalamenti
Featuring Julee Cruise
50 minutes
Warner Bros. Video

This recent release from the fertile mind of David Lynch is a logical extension of the visual and sonic territories he has been exploring in *Twin Peaks* as well as in his cinematic works. Badalamenti's music score treads familiar ground and borrows liberally from the TV series' jazz-influenced song style. There is, however, an especially ominous undertone to this work, accentuated by subterranean synthesizer groans, unexpected percussion hits, and Julee Cruise's breathy delivery. Stylistically, 90% of it was filmed in performance at the Brooklyn Academy of Music Opera House on November 10, 1989, giving the work a certain surrealistic outer-fringe quality. Exotic themes are acted out by a bevy of strange characters who weave themselves in and out of the starkly imposing metallic stage set. Dancing ballerinas, beat poetry-rapping dwarves, a naked woman

crawling around an ancient automobile, and a giant skinned deer are just some of the inhabitants of Lynch's darkly painted mindscape. And then there's Julee Cruise in the central role as the dreamself of the brokenhearted woman (played in the short opening sequence by Laura Dern). Towards the end of the piece, naked suspended children's dolls swing amidst a searchlit and smoke-filled battlefield of planes, twisted metal, and the blaring screech of air-raid sirens. The movie's final denouement features Julee Cruise floating high above the industrial landscape, pleading one last time for her lover (Nicholas Cage) to stay. As she wistfully drifts out of view, it is understood that the dream of a romantic reunion will never come to pass, shattering faith in the transformative power of love. **ME**

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Bruno Burns!

Rushdie Recants!



Jordin Isip

"You are perhaps more afraid to pronounce this sentence than I am to hear it."

—Giordano Bruno on being sentenced to death by the Roman Inquisition, 1599

"To witness that there is no God but Allah and that Mohammed is his last Prophet."

—Salman Rushdie's recantation to the Mullahs, 1990

Gracie & Zarkov

Inspired by Copernicus, Giordano Bruno let his imagination fly. He was the first to hypothesize relativity of position and mass, and the existence of other suns and planets, made of the same materials as the Earth, populated with intelligent beings. The Roman Catholic Church burned him at the stake on the

Campo dei Fiori 17 February 1600. Bruno turned his face away from the crucifix thrust through the flames for him to kiss. The modern world had begun.

Salman Rushdie is one of those artfully alienated souls who confuse the problems of the world with their own personal neuroses, blaming modern culture for both. Their personal histories of geographical alienation lead to a naive nostalgia for traditional cultures whose authority (they believe) can no longer reach them. An Oxbridge education only magnifies these tendencies.

Rushdie writes books designed not for reading but for deconstructing. His major activity between books was going the round of parties attended by the literati, glitterati, and upper-class intellectuals. There he could assuage partygoers' twangs of liberal guilt by informing them that the problems of the world were indeed all caused by the oppression of evil Western Culture.

In February 1989, Rushdie got a practical lesson in comparative culture and government. The Ayatollah Khomeini ordered Rushdie's death. The imaginative content of Rushdie's "The Satanic Verses," according to the Ayatollah, "...blasphemed Islam." Margaret Thatcher, a favorite target of Rushdie, immediately ordered Scotland Yard to protect a British subject from the wrath of the Infidels. Cody's Books in Berkeley was firebombed. The staff voted to continue selling the book in support of free speech.

The entrenched political élites of the western countries are far from perfect, as our readers well know. But, to equate them with third world thugs is ridiculous and makes progress from our current unsatisfactory state of affairs impossible. Life on the Planet of the Apes is a comparative advantage game. Only fools and fanatics see in crystal clear black-and-white. The wretched state of third world countries should first be blamed on the mass murderers, thieves, zealots, "developmental socialists" and other assorted scum that rule these countries. The remaining blame can then go to the western countries for supporting these pirates.

This fashionable myth of the "sanctity of the oppressed" is nowhere more evident than in the current debate on U.S. campuses. Those involved, the "Western Civ. Forever!" Conservatives vs. the "Politically Correct" Left-Liberals, are fighting over Traditional Western Culture. Both believe in the superiority of group rights. Both are wrong. Tribal, societal, community, party or state rights are fictions. Only individual flesh-and-blood human beings can have rights.

Remember, Traditional Western Culture burned Giordano Bruno. The scientific revolution after Bruno's death was in heroic opposition to traditional Western Culture. The Enlightenment Philosophes declared the universal freedom and rights of all. Their weapon was the printing press. The Industrial Revolution made exercise of these freedoms by more than a small elite possible. The Information Age

continues the hard fought battle for freedom. Our weapons are mass market electronics. Freedom of communication makes freedom of the imagination practical for all.

Freedom of the imagination has been opposed by every traditional culture and authoritarian creed. Whether it is the Ayatollah or the PMRC, the battle is between those who would restrict personal freedom and those who promote personal freedom.

On December 24th Salman

Rushdie grovelled for the Mullahs. "I feel a lot safer," he reported. Rushdie tried to save his skin to escape the boring isolation of protective custody and return to the cocktail party circuit. The publicity also will not hurt his flagging book sales. But his insincerity and cowardice were too apparent for the Mullahs. The death sentence stands.

In Rome on the anniversary of Bruno's martyrdom, we went to the Campo dei Fiori to place a wreath on

his statue, which stands where he was burned. At least a dozen other floral tributes were there as well. An assassin may still claim Rushdie's life. Unlike Bruno, his would not be a heroic martyr's death. Rushdie should ponder the Mullahs' genocide of the harmless Baha'is and the millions of his fellow native countrymen murdered over religion, or the Red Chinese pogroms against the Dalai Lama's followers. Unfortunately, violent death due to your beliefs is still all too frequent. By his apology to the Mullahs, Rushdie gave his personal assent to these murders and to his own. His death would be sad only because it would be without honor.

ME

** For further reading, we recommend Heroes and Heretics, a Social History of Dissent by Barrows Dunham.*

**Remember,
Traditional
Western
Culture
burned
Giordano
Bruno**

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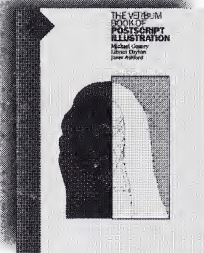
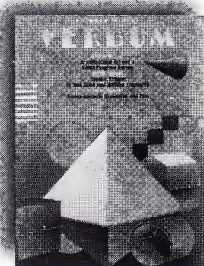
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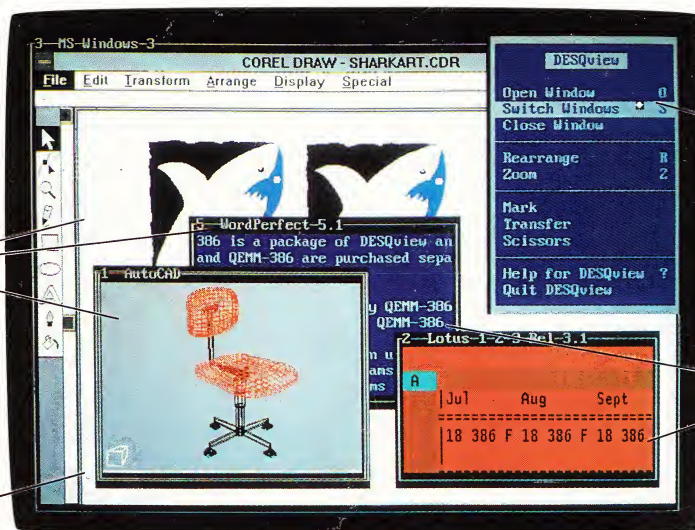
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